

NORTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT

FULLERTON COLLEGE

ADVISORY COMMITTEE MINUTES

Date of Meeting: Thursday, May 16, 2019

Location: Automotive Technology Department, Building 900

Committee: Automotive Technology Advisory

Members Present:

Mark Hawkins – Technical Solutions Manager, Redline Detection
Torricelli Joe – Fullerton College Automotive Student
Greg Ramirez – Automotive Emissions Instructor, Smog Tech Institute
Robert Vargas– Manufacturer representative, Hunter Engineering
Tom Brenneman – ASE Education Foundation Manager
Alan Vester- Shop Foreman, Fairway Ford
Peter Stawniczy – Vehicle Technician, City of Anaheim
Daniel Eini– Shop Owner, So Cal Tire and Service
Robert Gordon- Automotive Instructor, Retired
Robert Wenzlaff – Automotive Instructor, Retired
Sue Wenzlaff – Drafting Instructor, Retired

College Personnel: Jose Victor Miranda – Automotive Department Coordinator, Instructor
David Lopez – Automotive Instructor
John Farley – Automotive Instructor
Robert Maine- Automotive Instructor
Charles Zepeda – Automotive Instructor
David Diaz – Automotive Shop Coordinator

Jose Victor Miranda called meeting to order at 6:45 p.m.

1. Introductions:

Each member present introduced themselves and mentioned the organization they represented.

2. Selection of Committee Chair, Co-Chair, and Recorder.

Jose Victor Miranda, Chairperson; Greg Ramirez Co-Chair; David Diaz, Recorder.

3. Review of Minutes.

Tom Brenneman made a motion to approve the minutes, **Robert Vargas** seconded the motion; those present approved the minutes.

4. Program Update

A) Facilities & Equipment

1) Need of Storage Room.

David Diaz explained the current facilities limitations in regards to the lack of sufficient storage space for oversized automotive equipment and other instructional materials as well as additional parking for laboratory vehicles needed to satisfy current student needs and future program expansion. Additionally, he mentioned the need of extra exterior lighting to illuminate the shop parking lot areas and to possibly seek the installation of an awning or roof structure over the shop two outdoor workstations.

2) Need of Extra lecture Room for program expansion

David Diaz explained that the Auto department only counts with three formal classrooms for all the 19 different class offering. Classrooms are also used for laboratory activities such as engine/transmission disassembly practices often requiring extensive setup and clean up times. Moreover, FC auto students have expressed their desire to have dedicated classrooms for the different classes. **Jose Miranda** added that having an extra classroom could help us build more industry partnerships by being able to host update workshops for existing automotive technicians and for future program expansion in general.

Alan Vester introduced a motion second by **Peter Stawniczy** to approve the proposed additional storage room, lecture room and installation of outdoor workstation's roof structure and extra outdoor shop lighting. The committee voted to unanimously approve the motion.

3) Need of Equipment and tools

David Diaz asked the committees members for recommendation on new shop tools or equipment that might be suitable to incorporate into the program. **Peter Stawniczy** inquired if we had a new R1234yF A/C recovery machine. David replied that the high cost to own one of this machines is still a restrictive factor, **Robert Maine** added that very few vehicles equipped with R1234yF are in need of service or repair due to fact that most of these still carry manufacturer warranty. He added that instead we opted to purchase one more R134a recovery unit that could also service hybrid vehicles. **Alan Vester** commented that at the Ford dealership the R1234yF machine sees very little use as is only utilized on very select late models vehicles. He stated that as long as our students learn the basic principles of A/C recovery and recharge practices it will be sufficient to fulfill minimum qualification for aspiring technicians. **Mark Hawkins** pointed out that the FC auto fleet lacks of a vehicle that comes equipped with that particular type of Refrigerant, consequently if we purchase the machine we will also have purchase a new vehicle to practice on. **Robert Maine** added that on his A/C course students achieve the Section 609 certification during class, which covers particular recovery information on this refrigerant. He stated that

students also practice the usage of an ultrasonic testers to check for leaks and a refrigerant identifiers to minimize cross contamination. **Daniel Eini** commented that his shop technicians do service R1234yf equipped vehicles from time to time and that students should be aware of common failures including suction line heat exchangers and compressor internal cracks. He noted that R1234yf replacement refrigerant is priced much higher than any other auto refrigerant. **Peter Stawniczy** asked about what type of wire crimping practices were covered during the Electrical class. **John Farley** replied that students are trained in the usage of basic crimpers to build solid skills and that later on when students join the workforce they will learn the specifics on the different wire crimpers styles.

B) Budget

David Diaz explained that the FC auto department continue to receive funding through various sources such as the CA lottery system educational fund. Monies are used to cover for instructional supplies and small tools. Also, as part of the Strong Workforce for Advance Transportation Grant we were able to secure a new A/C recycling machine and the Autel 908 scan tool. **Daniel Eini**, commented that buying an Autel 908 diagnostic tool was a good choice. He really likes the Autel ease of use and its versatility at the time to update its software compared to Snapon units. He was really pleased to know that we are training students on this particular tool that is very popular among independent shops.

C) Curriculum

Charlie Zepeda presented curriculum updates to the advisory committee.

He mentioned that in previous meetings the automotive advisory committee supported the idea of reducing the Class size to 20 students per course to directly improve the quality of instruction, but it is important to note that class size is not subject to classroom seat availability. He said that in previous discussions with Kia technical trainer, Steve Denty suggested that keeping the student ratio of less than 20 students per 1 instructor was ideal for hands on automotive training. **Alan Vester** introduced a motion second by **Robert Vargas** to keep class size to a maximum of 20 students. Those present approved the motion.

In addition, **Charlie Zepeda** expressed that the automotive certificates class descriptions were recently revised and, approved at the state level. The Fullerton College Automotive Department offers a total of 11 training certificates and one associate degree. A packet was distributed to the advisory committee members that included current certificate descriptions and class summaries. He asked the committee member to scrutinize the course offerings and to present any suggestions to accommodate industry needs. No further revisions were advised. **Jose Miranda** added that by allowing auto students to achieve skills certificates while they continue their education broadens student's potential to secure

jobs and start gaining valuable work experience early on their careers. **Daniel Eini** commented that he could really use employees with the chassis specialist skills certificates. He added that in general most of the independent service garages look to hire certified technicians to fulfill minimum requirements of keep (AAA) certified shop status or ASE approved repair facility. He believes that by allowing our students to achieve auto skill certificates it encourages them to continue completing other industry recognized certifications such as ASE and Manufacturer specific endorsements. **Alan Vester** stated that at his Ford dealership new hires undergo constant training and work under a journeyman tech for about three years, during this time they are moved to different roles until they find an area they would like to specialize in. He complimented the program structure for his commitment for well-rounded automotive education and admitted that the number of units per certificate might be somewhat irrelevant to the industry hiring managers. **Jose Victor Miranda** elaborated that the number of units assigned to each certificate is calculated based on various factors such as the number of hours of instruction. Program budget depend on the number of awarded certificates. **Charlie Zepeda** asked the committee for their input in regards to current certificate survival. **Tom Brenneman** introduced a motion second by **Peter Stawniczy** to keep the all the current Automotive Certificates in place. The committee were all in favor to approve the motion

D) Behavioral Expectations, Skills and Uniforms

John Farley, presented some revisions to the list of industry relevant behavioral traits, skills and personal commitments previously discussed on the past meeting. Skills revision included; to have students understand responsibilities of automotive repair facility personnel (lot attendant, service technician, service consultant, parts specialist, and service manager) and the importance of knowing how to safely operate a vehicle with manual transmission. In addition, under the personal commitment area we can incorporate the ability to maintain a professional appearance (Fullerton College Auto Tech uniform shirt). He added that other CTE programs on campus require the use of a uniform. **Greg Ramirez** introduced a motion second by **Robert Vargas** to incorporate the additional behavioral expectations, skills and uniform policy.

5. New and Continuing Business

Joe Torricelli commented on the shop space limitations in regards to parking student vehicles projects and the lack of temporary storage rooms to keep students transmission projects to lay out the parts during the disassembly process. **Tom Brenneman** introduced a motion second by **Peter Stawniczy** to increase the number of shop parking spaces. Those present approved the motion.

In addition, **Greg Ramirez** mentioned that we could look into expanding the program by building a second story on the existing building to satisfy the need of extra storage and lecture room.

Charlie Zepeda, commented that the Fullerton College Scholarship Foundation administers the FC automotive scholarship. He explained that recently the auto department decided to invest the shop scrap metal recycling proceeds into the auto scholarship fund. The main goal is to help scholarship recipients purchase some tools to ease the transition in to a technician job. He invited committee members to make donation by contacting the FC Scholarship foundation manager Lindsey Gatica or by donating scrap metal materials. **Robert Wenzlaff** shared a personal experience that exemplifies that job behavioral traits are as important as having the necessary technical skills to be successful in a work environment. **Alan Vester** recommended that in future meetings we should cover industry trends.

6. Recruitment of New Members

Jose Victor Miranda asked members to recruit new industry members to increase support for the automotive program.

7. Summary

Jose Victor Miranda thanked the committee members for their time and support of the program.

Peter Stawniczy made a motion to adjourn second by **Charlie Zepeda**.

Meeting Adjourned at 9:00 p.m.

Automatic Transmission Specialist Certificate ✓

The Automatic Transmission Specialist Certificate Program requires a total of 17 units of which 17 units are in required courses. This program will help the student become employed as an automatic transmission specialist.

AUTO 050 F	Automotive Specialty Practice	2
AUTO 065 F	Auto Electrical and Electronic Systems	5
AUTO 084 F	Automatic Transmissions	8
AUTO 086 F	Automatic Transmission Fundamentals	3

Automotive Chassis Specialist Skills Certificate ✓

The Automotive Chassis Specialist Certificate Program requires a total of 15 units of which 15 units are in required courses.

Program Justification

This certificate is necessary to provide the student seeking entry level employment in the automotive chassis area with a set of skills that can be learned in one to two semesters. Demand for employment is constant in this area, and many senior technicians are retiring, creating job opportunities for the beginner.

AUTO 050 F	Automotive Specialty Practice	2
AUTO 065 F	Auto Electrical and Electronic Systems	5
AUTO 083 F	Brake and Suspension Systems Repair	8

Automotive Maintenance Specialist Skills Certificate ✓

The Automotive Maintenance Specialist Certificate Program requires a total of 16 units of which 16 units are in required courses. This program will help the student become employed as an entry level automotive maintenance specialist.

AUTO 050 F	Automotive Specialty Practice	2
AUTO 065 F	Auto Electrical and Electronic Systems	5
AUTO 082 F	Automotive Engine Performance and Driveability	8
AUTO 089 F	Automotive Air Conditioning	4

Automotive Management Certificate (FY 2019)

This Automotive Management Certificate is designed to provide the student with entry level employment skills needed in the area of automotive management. A student can seek employment as a service consultant, service manager, or service department dispatcher at new car dealerships, specialty repair shops, franchise automotive repair facilities, or as a sole proprietor. The course work will develop a student's understanding of the major automotive systems and thereby enhance their ability to communicate repair recommendations to customers. The proper calculations of repair costs and the management of industry recognized documents associated with vehicle repairs will be covered in the required courses. This certificate requires a total of 36-43 units.

Required Courses (9 units)

	Units
AUTO 055 F Automotive Business Management	5
AUTO 131 F Automotive Fundamentals	4

Restricted Electives (27-34 units)

Complete at least 27 units from the following restricted electives list:

	Units
AUTO 051 F Internship in Automotive	2 - 4
AUTO 060 F Automotive Powertrains	5
AUTO 065 F Automotive Electrical and Electronic Systems	5
AUTO 081 F Engine Rebuilding and Repair	8
AUTO 082 F Automotive Engine Performance and Driveability	8
AUTO 083 F Brake and Suspension Systems Repair	8
AUTO 084 F Automatic Transmissions	8
AUTO 086 F Automatic Transmission Fundamentals	3
AUTO 089 F Automotive Air Conditioning	4
BUS 151 F Business Mathematics	3
BUS 180 F Small Business Management	3
BUS 266 F Human Relations in Organizations	3
CIS 100 F Introduction to Personal Computers	4
TECH 081 F Technical Mathematics I	3

Automotive Service Advisor Certificate (FY 2017)

The Automotive Service Advisor Certificate Program requires a total of 17-19 units of which 12 units are in required courses. An additional 5 units must be chosen from the restricted units listed below.

Required Courses (12 units)

	Units
AUTO 055 F Automotive Business Management	5
BUS 180 F Small Business Management	3
CIS 100 F Introduction to Personal Computers	4

Restricted Electives (5-7 units)

	Units
AUTO 050 F Automotive Specialty Practice	2
AUTO 131 F Automotive Fundamentals	4
BUS 266 F Human Relations in Organizations	3

Automotive Technology Certificate (FY 2019)

The Automotive Technology Certificate allows the student flexibility to study in all areas of automotive repair or to focus on a series of courses in a particular area of repair. It incorporates electives for students to acquire skills in other Career Technical Education areas that are often required in the automotive career path. The Automotive Technology Certificate Program is designed to prepare students for employment in the automotive industry as automotive technicians, apprentice mechanics, automotive parts distributor or salesperson, or specialists in one of the many areas in, or jobs related to, the automotive industry. This certificate requires a total of 33-41 units. A minimum grade of C is required in each course taken. At least half the units toward the certificate must be taken at Fullerton College.

Select 28-35 units of AUTO courses:

	Units
AUTO 050 F Automotive Specialty Practice	2
AUTO 051 F Internship in Automotive	2 - 4
AUTO 060 F Automotive Powertrains	5
AUTO 065 F Automotive Electrical and Electronic Systems	5
AUTO 070 F Engine Reconditioning	7
AUTO 072 F Automotive Engine Performance	7
AUTO 073 F Brake Systems Repair	7
AUTO 081 F Engine Rebuilding and Repair	8
AUTO 082 F Automotive Engine Performance and Driveability	8
AUTO 083 F Brake and Suspension Systems Repair	8
AUTO 084 F Automatic Transmissions	8
AUTO 086 F Automatic Transmission Fundamentals	3
AUTO 088 F Fuel Systems and Advanced Drivability Diagnosis	4
AUTO 089 F Automotive Air Conditioning	4
AUTO 090 F Emission Control Systems and Advanced Diagnosis	6
AUTO 091 F Cylinder Head Repair	4
AUTO 131 F Automotive Fundamentals	4

Select an additional 5-6 units from the list below:

	Units
MACH 116 F Machine Tools	2
WELD 100 F Introduction to Welding	3
WELD 120 F Gas Shielded Arc Welding	3
TECH 081 F Technical Mathematics I	3

Automotive: Emission Control Specialist Certificate

The Emission Control Specialist Certificate will prepare the student for The National Institute of Automotive Service Excellence (ASE) Exams, The State of California Smog Check Inspector License Exam, and/or the State of California Smog Check Repair Technician License Exam. Completion of the Emission Control Specialist Certificate, ASE Exams, The California Smog Check Inspector Exam, and The California Smog Check Repair Technician License Exam will enable a student to seek employment within the California Smog Check Program. The Emission Control Specialist Certificate Program requires a total of 18 units of which 18 units are in required courses.

AUTO 082 F	Automotive Engine Performance and Driveability	8
AUTO 088 F	Fuel Systems and Advanced Drivability Diagnosis	4
AUTO 090 F	Emission Control Systems and Advanced Diagnosis	6

Automotive: Engine Performance Specialist Skills Certificate

The Engine Performance Specialist Certificate Program requires a total of 17 units of which all units are in required courses. This provides preparation for advanced entry level employment as an automotive technician who will specialize in engine performance diagnosis and drive ability problem repair, and will also qualify the student to take the National Institute for Automotive Service Excellence (ASE) A6 Electrical and Electronics and A8 Engine Performance examinations.

AUTO 065 F	Auto Electrical and Electronic Systems	5
AUTO 082 F	Automotive Engine Performance and Driveability	8
AUTO 088 F	Fuel Systems and Advanced Drivability Diagnosis	4

Automotive: Fabrication Specialist Certificate

The Fabrication Specialist Certificate Program requires a total of 17 units of which 17 units are required courses. This certification will be an important first step toward gaining employment in the automotive fabrication area where it is necessary to design and manufacture parts as well as repair them.

AUTO 055 F	Automotive Business Management	5
AUTO 065 F	Auto Electrical and Electronic Systems	5
DRAF 171 F	Fundamentals of Drafting	2
MACH 116 F	Machine Tools	2
WELD 121AF	Introduction to Welding	2
WELD 121BF	Fundamentals of Inert Gas Welding	2

Automotive: Light Repair Specialist Skills Certificate

The Light Repair Specialist Certificate Program requires a total of 16 units of which 16 are in required courses. Completion of this program will help the graduate find entry level employment as an automotive light repair specialist.

AUTO 050 F	Automotive Specialty Practice	2
AUTO 065 F	Auto Electrical and Electronic Systems	5
AUTO 073 F	Brake Systems Repair	7
AUTO 089 F	Automotive Air Conditioning	4

Automotive: Manual Drive Train Specialist Skills Certificate

The Manual Drive Train Specialist Program requires a total of 12 units of which all units are in required courses. This program will help provide skills necessary to obtain employment in the area of manual transmission, transaxle, driveline, and axle repair. Students will study the material necessary to take the National Institute for Automotive Service Excellence (ASE) examinations in Manual Drive Train Axle repair and in Automotive Electricity and Electronics.

AUTO 050 F	Automotive Specialty Practice	2
AUTO 060 F	Automotive Powertrains	5
AUTO 065 F	Auto Electrical and Electronic Systems	5

Automotive Technology Associate in Science (FY 2019)

The Automotive Technology Associate in Science degree is designed to provide the student with the knowledge and skills needed for employment in the following automotive industry areas: Engine Repair, Automatic Transmissions/Transaxles Repair, Manual Drive Trains and Axles Repair, Suspension and Steering Repair, Brakes Repair, Electrical and Electronics Repair, Heating and Air Conditioning Repair, Engine Performance Repair, Service Consulting, Service Management, and Parts Control. This degree requires a total of 46-52 units.

Required Courses (36 units)

	Units
AUTO 081 F Engine Rebuilding and Repair	8
AUTO 082 F Automotive Engine Performance and Driveability	8
AUTO 083 F Brake and Suspension Systems Repair	8
AUTO 084 F Automatic Transmissions	8
AUTO 131 F Automotive Fundamentals	4

Restricted Electives (10-16 units)

	Units
AUTO 050 F Automotive Specialty Practice	2
AUTO 051 F Internship in Automotive	2 - 4
AUTO 055 F Automotive Business Management	5
AUTO 060 F Automotive Powertrains	5
AUTO 065 F Automotive Electrical and Electronic Systems	5
AUTO 070 F Engine Reconditioning	7
AUTO 072 F Automotive Engine Performance	7
AUTO 073 F Brake Systems Repair	7
AUTO 086 F Automatic Transmission Fundamentals	3
AUTO 088 F Fuel Systems and Advanced Drivability Diagnosis	4
AUTO 089 F Automotive Air Conditioning	4
AUTO 090 F Emission Control Systems and Advanced Diagnosis	6
AUTO 091 F Cylinder Head Repair	4
AUTO 096 F Performance Technology	4
WELD 100 F Introduction to Welding	3