

See program review website for detailed timeline and relevant request forms:
<https://research.gwc.cccd.edu/oir/progreview/2013/index.html>

Golden West College

INSTRUCTIONAL

PROGRAM REVIEW

Spring 2013

Program Name: Automotive Technology

Division Name: Career and Technical Education

Overview of Program:

The Automotive Technology program at Golden West College is designed to provide students with the opportunity to successfully prepare for careers in the automotive service industry as entry level technicians or other related occupations. It is certified by the National Automotive Technicians Education Foundation (NATEF) and its courses and instructions align with NATEF requirements and standards. Advanced course work is also available to employed technicians to meet state licensing requirements or to pursue promotional opportunities. Instructors are well qualified to teach in their areas of expertise and are certified by the National Institute for Automotive Service Excellence (ASE), which has national prominence and recognition by the automotive industry.

The lab facilities, operations and equipment are intended to reflect industry standards to assist students for easy transition into employment opportunities.

The Automotive Technology program also offers advanced coursework to employed technicians who seek state licensing or promotional opportunities.

Program Contact Information:

<u>Program Contact Name</u>	<u>Phone #</u>	<u>E-mail prefix</u>
Bryan Kramer	x52751	bkramer

<u>Program Manager</u>	<u>Title</u>	<u>Salary Sched/Column</u>	<u>Phone #</u>	<u>Office Location</u>	<u>E-mail prefix</u>
Claudia Lee-Saddul	Acting Dean	D-32	x58178	Tech 115	clee-saddul

<u>Classified Staff</u>	<u>Title</u>	<u>Salary Sched/Column</u>	<u>Phone #</u>	<u>Office Location</u>	<u>E-mail prefix</u>
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<u>Full-Time Faculty</u>	<u>Phone #</u>	<u>Office Location</u>	<u>E-mail</u>
Bryan Kramer	x52751	AD	bkramer@gwc.cccd.edu
John Kasabian	x51002	AD 111	jkasabian@gwc.cccd.edu

Current State of the Program

1. What noteworthy trends do you notice in your data tables?

- Fill rates of courses from 2008 to 2012 showed a maximum increase of 13% when term enrollment peaked at 567 students. The average fill rate was 10% hire since 2008 as

enrollment more than doubled and sections increased.

- Course G101 showed an 8% increase in student success rate from 2008 to 2011.
- Course G110 showed a decrease in student success rate from 76% to 47% from 2008 to 2012.
- Course G130 showed a 20% increase in student success rate from 2008 to 2012.
- Course G141 showed a 20% increase in student success rate from 2008-2012.
- Courses G150 and G151 showed a 30% increase in students success rates from 2008-2012.
- Course G181 began in 2010 and showed a total increase of 20% in 2012.
- Total number of female students in the program was 11 in 2008, and increased to a maximum of 42 students in fall of 2011 as enrollment was at its maximum point. Total number of female students was 28 at the end of this data analysis.

2. What are your analyses of the causes or reasons for those trends?

- Fill rates increased as enrollment increased. Sections offered increased and the program wide growth was underway. Fill rates also increased due to the advertising, and outreach campaign. High school visits and promotions helped to increase enrollment, and fill rates.
- Course G101 had an 8% increase in student success rates through 2011. The curriculum and material within this course were revised to increase student achievement. Data indicates this increase.
- Course G110 had a near 30% decrease in student success rates. This is not acceptable. This decrease began with the hiring of a part-time faculty member to deliver this course. From 2010 to 2012 this decrease was highest, which coincides with the hiring of this instructor. We are asking for 2 full time faculty members to increase student success in multiple courses. Standardization of materials across the entire program will be near impossible with only two full time faculty members. Decreasing part time instructor involvement will dramatically increase cohesion within materials and teaching styles. Consistency across the program will increase student success in core areas one through 4.
- Course G130 had its maximum increase of 20% in 2012. This increase came at the same time one new full time faculty member hiring. The new teaching style and effort has directly increased student efficiency.
- Course G141 had its maximum increase of 20% in 2012. This increase came at the same time one new full time faculty member hiring. The new teaching style and effort has directly increased student efficiency.
- Courses G150 and G151 show an increase of 30% to near 100% student success. This could be due to grade inflation from part time faculty. It could be due to a lack of course rigor. The increase is higher than probable, and student success rates should be at realistic levels. We are asking for 2 full time faculty members to increase student success in multiple courses. Standardization of materials across the entire program will be near impossible with only two full time faculty members. Decreasing part time instructor involvement will dramatically increase cohesion within materials and teaching styles. Consistency across the program will increase student success in core areas one through 4.
- Course G181 was introduced in 2010, and has shown a 20% increase in student success through 2012. This increase came with the evolution of the Honda PACT program at Golden West College. The course curriculum and rigor has been balanced and the instructor method has improved.
- As enrollment continued to increase from 2008 to 2011 there was an increase in the number of female students enrolled in the program. Female enrollment nearly quadrupled as total

enrollment doubled. This increase of non-traditionally enrolled students is directly influenced by program advertisement, promotions, and outreach with local high schools.

3. What does your program do well?

- Progressively change and modernize our facility and instructional equipment.
- Develop courses and programs with new technologies in mind.
- Identify goals and visions of local businesses and organizations to refine training methods.
- Meet the training needs of the Southern California Regional Transit Training Consortium.
- Meet the needs of all Honda dealership training in Orange County.
- Our active participation in the Orange County Auto Dealers' Association has secured paid internships and scholarships for our students.
- Active participation in local and national high school automotive technology skills competitions increases program awareness and outreach.
- Restructure our class schedules to attract students from other programs.

4. What are the challenges to your program?

Within your program's control:

- The department needs ambitious employees to create classes, to continue recruitment, and to join industry organizations to stay current with new technology.
- Instructors must become ASE Master Technicians to teach all sections we offer.
- Instructors must become industry certified (Honda, Bosch, ATECH, Hunter, BAR) so that we can offer seminars for profit through the community education program.
- Instructors must align curriculum to new 2012 NATEF M.A.S.T. program requirements.
- Lab vehicle fleet is aging and does not align with current industry vehicle technologies, which requires acquiring new vehicles for up-to-date student training.
- Facility has a lack of security measures, which results in equipment loss and damage.

Beyond your program's control:

- The Automotive Department plans to hire two full-time faculty and one full-time lab assistant and one part-time clerical assistant.
- The facility does not utilize space efficiently with a large open parking lot between all lab stalls; classrooms are limited in number, small in square footage, and lack current learning technologies.

5. What are the opportunities for your program?

- Many auto manufacturers are losing instructors due to retirement and budget cutbacks. We could teach industry classes, for profit, in our facility. This could help the program generate funds, and bring in an industry sponsor and supply the students in our program newer cars and more current diagnostic equipment in the lab.
- Recertify the general automotive program through NATEF to stand independently of the Honda PACT program, and gain a separate certification for the Honda PACT program here at Golden West College.

- Improve student work experience internship/sponsorship program to place more students in industry-relevant training locations.
- Restructure courses and certificate requirements to improve student certificate completions, success, and persistence core indicators 1 through 4.
- Local automotive programs are shutting down, allowing for an increased number of incoming students to our program.

6. Identified areas in need of improvement

- **Certificate Program Reorganization.** Restructuring of the certificate programs to include certificates of specialization in core automotive areas, leading into certificates of achievement with the completion of technical math, communication, and English courses. Thus, improving student communication skills, increasing employability, while maximizing numbers of certificate completers.
- **Facilities Renovation Plan.** The Automotive Technology program needs to maximize its square-footage-to-student ratio. Our facility's location, at the edge of Parking Lot A, storefronts the campus for all Golden West Street traffic. Modernization of the buildings will create a new "campus face" for residents who drive past the college. Expansion of the existing building structures into our courtyard area will enclose 75,000 square-feet and create learning spaces for 1,400 additional students each semester. A new roof can unite our existing structures and courtyard into one contained unit. The existing structures will not be torn down. Renovation design should match the new campus buildings in appearance, as sketched in the Facilities Master Plan. We envision storefront windows across the perimeter of the building. In the plan below, the blue areas represent the enclosures for the proposed project. (See below).

AUTOMOTIVE TECHNOLOGY RENOVATION PLAN

(This plan also appears in the "Resource Planning" section of the Program Review. The costs are outlined below and attached as Appendix I, in the Appendices.)



GOLDEN WEST STREET PARKING LOT

SEE NEXT PAGE FOR COST DETAILS

COSTS OF PROJECT: \$30.5 MIL (Appendix I)

DESCRIPTION	QUANTITY	COST	TOTAL
Enclose Existing Building Structures, Adding 4 Classrooms	1	\$22,500,000	\$22,500,000
Architectural, Engineering, Permits and DSA Fees	1	\$795,000	\$795,000
Contractor Fees (GC, Overhead, Profit)	1	\$1,500,000	\$1,500,000
Electrical for Body Shop during Temporary Use	1	\$31,000	\$31,000
Data Lines for Body Shop during Construction Time Use	1	\$18,000	\$18,000
48-port Gigabyte Switch to Use in Body Shop	1	\$9,200	\$9,200
Roll-up Doors	8	\$20,000	\$160,000
New Challenger 10-ton, Dual-post Lifts	31	\$10,000	\$310,000
Relocate Lifts for Construction (to body shop and back)	11	\$6,000	\$66,000
Remove & Disposal of in-ground Lifts	8	\$7,000	\$56,000
Alignment Rack Moving (to body shop and back)	1	\$15,000	\$15,000
Integrated-Tool Workstations	6	\$76,750	\$460,500
Air Reels	55	\$800	\$44,000
Air-line Plumbing	1	\$63,100	\$63,100
Drop Lights	35	\$175	\$6,125
PC Computer Stations (Includes Maintenance Plans)	35	\$2,600	\$91,000
48-port Gigabyte Switch	1	\$9,200	\$9,200
Data Lines and Access to Network Backbone	1	\$22,000	\$22,000
Wireless AP	1	\$800	\$800
Stone-hart 1/4-in epoxy floor system	1	\$530,000	\$530,000
Audio/Visual Equipment	4	\$15,000	\$60,000
Security Surveillance, 16-Camera, High-Resolution DVR System	1	\$50,000	\$50,000
Remodel Existing Bathrooms to ADA Standards	3	\$17,000	\$51,000
Build New Bathrooms, ADA Approved	2	\$35,000	\$70,000
Classroom Atech Electrical	6	\$11,800	\$70,800
Lab Electrical Panels & Wiring	1	\$620,000	\$620,000
Exhaust System (Sealed Sliding, 35 Stations)	1	\$145,000	\$145,000
Paint walls and ceiling	1	\$200,000	\$200,000
Lighting (8-ft on Center Fixtures)	1	\$975,500	\$975,500
Deluge Fire-sprinkler System	1	\$530,000	\$530,000
Heating and Air Conditioning 25-ton Capacity Roof Units	5	\$65,000	\$325,000
Suspended Acoustic Ceiling	1	\$425,000	\$425,000
Waste Oil Transport Container Tanks	12	\$1,020	\$12,240
Toxic Waste 3-Stage Clarifier	1	\$175,000	\$175,000
Waste Oil Above-ground, Double-walled, Recovery System	1	\$105,000	\$105,000
GRAND TOTAL			\$30,501,465

Program-Level Student Learning Outcomes (pSLOs) Assessed During 2010-12*Complete a separate page for each major and/or certificate you assessed.*

Program Name: _____ Semester Fall Spring Year: _____
 Program Type: Transfer Major Assessed: Winter Summer
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	Pass the SP-2 Mechanical Safety and Mechanical Pollution Prevention Test with at least 80% correct answers.
Step 2	What method did you use to assess the SLO?	SP-2 safety test final exam scores for mechanical safety, and mechanical pollution prevention.
Step 3	Describe the results of your assessment.	All students that passed any program courses completed the SP-2 final exams with a minimum of 80% answers correct.
Step 4	Describe your analysis of the data.	This SLO goal has been met. All students are required to complete the SP-2 Mechanical Safety, and Mechanical Pollution Prevention tests with a score of minimum score of 80%.
Step 5	What planning and changes will or have occurred, as a result of assessment and analysis of data, to improve student learning?	Lecture topics will be necessary to align with SP-2 practices and procedures. SP-2 training review will be built into weekly quizzes, and exams in both written and practical form. Lab assignments will be developed as student exercises to reinforce safety information. Curriculum aligned with SP-2 will directly increase student learning due to repeated use of safety information and procedures.

Program-Level Student Learning Outcomes (pSLOs) Assessed During 2010-12*Complete a separate page for each major and/or certificate you assessed.*

Program Name: _____ Semester Fall Spring Year: _____
 Program Type: Transfer Major Assessed: Winter Summer
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	Successfully complete 80% of all related classroom lecture and NATEF worksheet assignments.
Step 2	What method did you use to assess the SLO?	NATEF documentation was reviewed. Core indicator 1 data was analyzed.
Step 3	Describe the results of your assessment.	Documentation indicates a deficiency in student success. The SLO goal was not met.
Step 4	Describe your analysis of the data.	As of Fall term of 2012 the program showed a 76.9% student success rate indicating passing grades. This indicates that 23.1% of students failed this SLO.
Step 5	What planning and changes will or have occurred, as a result of assessment and analysis of data, to improve student learning?	Repair orders, worksheets, and laboratory exercises will be required to be completed during every laboratory meeting. Course outlines will include NATEF requirements as the curriculum outlines. These task completions are required for passing courses. (95% P-1, 80% P-2, and 50% P-3 tasks). Completion of these tasks will increase student learning by exposing students to all relevant procedures.

Program-Level Student Learning Outcomes (pSLOs) Assessed During 2010-12*Complete a separate page for each major and/or certificate you assessed.*

Program Name: _____ Semester Fall Spring Year: _____
 Program Type: Transfer Major Assessed: Winter Summer
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	Use a range of classroom and lab learning aids and related media to ensure passing grades on all tests.
Step 2	What method did you use to assess the SLO?	Written and practical exams required the use of learning aides and related media to answer questions, and complete physical tasks.
Step 3	Describe the results of your assessment.	Documentation indicates a deficiency in student success. The SLO goal was not met.
Step 4	Describe your analysis of the data.	As of Fall term of 2012 the program showed a 76.9% student success rate indicating passing grades. This indicates that 23.1% of students failed this SLO. This clearly indicates not all tests were passed, which shows that SLO goal was not met.
Step 5	What planning and changes will or have occurred, as a result of assessment and analysis of data, to improve student learning?	Classroom and laboratory assignments developed will include a process that requires the use of learning aides and media to find service related information. This information is required to complete diagnostic, and repair procedures. Repeated use of these aides will increase critical thinking, and student success.

Program-Level Student Learning Outcomes for 2012-14

(List the 3-5 most important expected student learning outcomes to be assessed over the next two years.
Complete a separate page for each major and/or certificate you did not complete the assessment for the last 2 years.

Program Name: _____ Semester to be Assessed: Fall Spring Winter Summer Year: _____
 Program Type: Transfer Major
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	Demonstrate an ability to self-assess progress and development in a specific area and to further design and pursue a course of action based on the self-assessment. (pSLO #E)
Step 2	What method did you plan to use to assess the SLO?	Task evaluations will be given to allow students to reflect on progress. This will encourage critical thinking and communication skills.
Step 3	When is the assessment going to be done and who is going to conduct it?	Assessments will occur during laboratory tasks. When the task is complete the instructor will conduct an oral evaluation of student knowledge retention of the given subject area. This can be done on a daily basis during laboratory activities.

Program Name: _____ Semester to be Assessed: Fall Spring Winter Summer Year: _____
 Program Type: Transfer Major
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	Demonstrate mastery of diagnostic tools and equipment used for automotive repair. (pSLO – Auto)
Step 2	What method did you plan to use to assess the SLO?	Practical laboratory exams will require mastery level of understanding of diagnostic tools and equipment.
Step 3	When is the assessment going to be done and who is going to conduct it?	Both midterm and final practical examinations will occur for every course each semester. They will be designed and delivered by the course instructors.

Program Name: _____ Semester to be Assessed: Fall Spring Winter Summer Year: _____
 Program Type: Transfer Major
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	Analyze and diagnose automotive engines and related components for correct system operation. (pSLO – Auto)
Step 2	What method did you plan to use to assess the SLO?	Laboratory daily practical tasks (on vehicle) will be assigned. Completed tasks, related worksheets, and repair orders specific to prepped vehicles will be reviewed.
Step 3	When is the assessment going to be done and who is going to conduct it?	Daily laboratory exercises will be delivered and assessed by the course instructors.

Program Name: _____ Semester to be Assessed: Fall Spring Winter Summer Year: _____
 Program Type: Transfer Major
 Certificate of Achievement
 Basic Skills Sequence
 Area of Emphasis
 Gen Ed Area

Step 1	Define the Expected Program Student Learning Outcome (pSLO).	
Step 2	What method did you plan to use to assess the SLO?	
Step 3	When is the assessment going to be done and who is going to conduct it?	

Resource Planning

Staffing What staff changes or additional employees does your program need to function adequately?

Faculty: Two full-time faculty. The program is in dire need to hire two new full-time faculty to directly increase student success in core indicators 1 through 4 by collaboratively developing curriculum that has cohesion and consistency in both style and content.

Management: None

Classified: Full-time Instructional Associate (E-48). We must hire one full-time classified Instructional Associate to support our rate of growth. This will maximize one on one contact between faculty, and students. This will streamline laboratory exercises allowing for more efficient use of faculty and student time.

Hourly: one part-time clerical assistant

Considering your current employees, what staff development/training does your program need?

Note: Complete all faculty request forms in separate files and submit with your program review report as an attachment.

Technology What improvements, changes or additions in equipment dedicated to your program are needed to function adequately?

Equipment or Software (e.g., computers, AV, lab equipment): **See Facilities Renovation Plan above.**

- Move computers (8 total) from Room 118 to Room 112. Add 16 new computers to Room 112 to create a computer lab.
- Add 8 computers to Room 106
- Add 6 computers to Room 103
- Boring bar – approximately \$50k
- Hone – approximately \$30k
- Screw jacks - \$100 each x 6 = \$600
- Brake lathe – \$9-\$12K each x 3 = \$36K

Technical Infrastructure (e.g., AV or computer infrastructure, cabling): **See Facilities Renovation Plan above.**

- All cabling and AV/computer infrastructure that is associated with computer requests above.
- Lighting updates to LED.

Facilities What improvements or changes to the facilities would you need to function adequately?

Physical Concerns (e.g. electrical, gas, water, foundation, space, ventilation). **See Facilities Renovation Plan above.**

Health, Safety and Security (e.g. **See Facilities Renovation Plan above.**

- Installation of security cameras and card access doors to reduce/eliminate theft of costly equipment and tools.
 - 4-6 security cameras and 2 card access doors, including software is approximately \$25k
 - 2nd choice: 2 security cameras and 2 card access doors, sharing software is approximately \$12k

Other What changes or other additions need to be made to your program to function adequately?

- 10 new vehicles to update the fleet. (\$10-20K per car, for a total of \$150-200K)

IUA and Dean Review

Complete this section after reviewing all program review information provided. IUA and Dean are to separately indicate the level of concern for the program that exists regarding the following Program Vitality Review (PVR) criteria. Add comments for any item marked with a 1 or 2. Identify whether the comment is made by the IUA or the Dean.

(Scale: 0 – No concern at all, 1 – Some concern, 2 – Serious Concern)

IUA/Dean

- (0) (0) a. Significant declines in enrollment and/or FTES over multiple years
- (0) (0) b. Significant change in facility and/or availability and cost of required or necessary equipment
- (2) (1) c. Scarcity of qualified faculty
- (0) (0) d. Incongruence of program with college mission and goals, state mandates, etc
- (0) (0) e. Significant decline in labor market
- (0) (0) f. Continued inability to make load for full-time faculty in the program
- (0) (0) g. An over-saturation of similar programs in the district and/or region
- () () h. Other_____

Program Review Check-list

- () Department Contact Information is up to date: Department Chairs, full-time faculty, classified
- () Organization Chart: Verify that it is up to date: (q:\college information\org charts) Report necessary changes to the Director of Personnel
- () Both the Dean and IUA has completed the Dean and IUA Review section.

Signatures, Individual Comments

Department Chair: Bryan Kramer Date: 04/30/2013
Comments:

Division Dean: Claudia Lee Date: 04/30/2013
Comments:

(X) No further review necessary

() We recommend this program for Program Vitality Review

I have read the preceding report and accept the conclusions as an accurate portrayal of the current status of the program. Signatures are on file in the division office. Type the names of the faculty.

- (X) Bryan Kramer
- (X) John Kasabian
- ()
- ()

I have read the preceding report and wish to add signed comments to the appendices.
Signatures are on file in the division office.

- ()
- ()
- ()
- ()
- ()

Appendices

- A. Data Sets
- B. Signed Comments
- C. Classified Position Requests
- D. Faculty Position Requests
- E. General Fund One-Time Funds Requests
- F. Curriculum Inventory
- G. SLO Inventory