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**Program Review**  
**Form for Completion of Self Study**  
**Instructional**  
(Including BOTH Academic and Continuing Education)

The ID number for this form is 1000082. You will need this number to update or edit your submission in the future.

Name of Division: Industrial and Transportation Technologies

Name of Department: Transportation

Name of Program: Automotive

This Program Review is being conducted during year: 2010-2011

**I. Program's/Department's Purpose**

A.) State the purpose of the program/department. How is this purpose within the mission of Amarillo College?

To strengthen local and regional industry by training students in a quality responsive program using the most modern equipment available in a hands-on laboratory experience.

The Automotive, Collision, and Diesel Departments support the Amarillo College Mission by enriching the lives of our students in order to strengthen our Community. Faculty and staff of these programs are engaged in improving student's access to technology and support services and helping students achieve their goals to be successful citizens.

B.) When was the last time the program's/department's purpose statement was reviewed/revised by faculty and staff in the program/department?

The writer of this document has researched the electronic archives, the assessment and development plan, and the Institutional Effectiveness Measures for Automotive, Diesel and Collision from 1999 and has found no evidence of a previous Program Review. Therefore, a review of a previous purpose statement was not found.

C.) If the program/department offers continuing education credits, how are these courses consistent with the mission of Amarillo College?

D.) Does the program have admissions policies?

Yes

1. Where are the policies published?

Admissions policies are found in the Amarillo College catalog and on the AC website at "actx.edu".

2. Explain how these policies are consistent with the mission of Amarillo College.

Policies are established and written by Amarillo College

E.) Is the program/department accredited?

No

F.) Is this program/discipline required to receive approval from an external agency or organization (other than the Texas Higher Education Coordinating Board) in order to offer courses?

No

**II. Program's/Department's Improvements based on Planning, Evaluation and Assessment**

A.) Identify at least one example of an improvement/revision which resulted from the annual PET forms for the last five years.

The Automotive, Collision and Diesel programs are constantly seeking the goal of Quality Instruction as mentioned in the 2011 Career and Technical Strategic Plan. We are also seeking the goal of delivering 21st century skills training as read in the Amarillo College Strategic Plan part 1.4. Our most recent PET forms mention some of the latest

improvements to the programs.

We have acquired a designated computer lab for teaching and learning computer skills across our disciplines. The computers are used for finding vehicle repair specifications and information on the internet. The programs pay a yearly subscription to "Mitchell On Demand 5", loaded on the desk tops, to locate specific data for use in all areas of Automotive and Diesel instruction. This lab has allowed us to teach our students many computer skills from basic to advanced with great success. We also have two wireless remote laptop carts with the same internet access to use out in the bay areas. They have Yaw cams and pencil cams for viewing minute details on vehicles for group instructional sessions. These have been used on a daily basis and have been a very successful teaching tool for holding students attention and enriching their interest.

The automotive program has the latest computerized front end alignment machine for teaching the core curriculum suspension classes. The Automotive, Collision, and Diesel programs share a core suspension class that use this tool to teach with. The user friendly aspects and interactive instruction program built in to it have proven to be successful for the student learning process.

Some of this equipment has been purchased with Perkins money, some with programs budgets and some with monies from other departments of Amarillo College, and all of it has been because of careful planning, evaluation, and assessment.

B.) Identify at least one example of improvements/revisions which resulted from the last Program Review.

The writer of this document has researched the electronic archives, the assessment and development plan, and the Institutional Effectiveness Measures for Automotive, Diesel and Collision from 1999 and has found no evidence of a previous Program Review. Therefore, a summary of how a previous review could be valued to make improvements/revisions was not pertinent.

C.) Identify all the delivery approaches used for courses within this program/department: (Select all that apply).

traditional classroom

D.) Identify at least one example of an improvement/revision that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015.

The Automotive, Collision, and Diesel programs contribute to the implementation of the strategic plan by offering a set of core classes to students who enroll in any of the three areas of study. Under goal number one, Expand Student Success, task one Synchronize recommendations for career advising and course registration, we support the task 1.2.1.1. Career and Technical Faculty and Directors develop core curricula for assigned clusters. The five core classes; DEMR 1301 Shop Safety and Procedures, AUMT 1307 Automotive Electrical Systems, AUMT 1310 Automotive Brake Systems, DEMR 1323 Heating Ventilation and Air Conditioning, and ABDR 1327 Suspension Systems, offer the students diversified instruction in all disciplines and a well-rounded knowledge of three industry links.

These three programs also contribute to the strategic plan in task 1.2.1.1.3, Amarillo career cluster directors will train AC advisors, faculty and area high school career guidance experts on alignment between AC and high school career pathways. There are High school dual credit agreements in place to allow high school students to transition easily into the AC programs from a similar high school program and receive college credit.

Our group of transportation programs will always support strategies 1.3 Certifying quality instruction, and 1.4 Aligning our learning outcomes with THECB outcomes. By maintaining our syllabi and lesson plans, making sure our course offerings meet industry needs, and purchasing 21st Century training equipment we will deliver quality instruction to our students and implement the Amarillo College Strategic Plan.

E.) Provide names and titles of those who determined the process used to assess outcomes of the program and/or courses in the department.

These programs have had a broad-base of involvement and information sharing regarding the planning, evaluation, and assessment process. The faculty of the programs have been involved in discussion of purchasing new equipment for many years. The curriculum revision process, (development of core classes, addition and deletion of courses, and changes to optional curriculum pathways), has always included the faculty, staff and administration. Scheduling of classes and the choosing of physical location of classes to meet student needs has also been inclusive of the entire department. The faculty has provided updates to syllabi, lesson plans and student tool lists. The list of people are, in alphabetical order; Bill Barclay, Diesel Mechanics instructor, Gene Buchanan, Collision instructor, Brian Jacob, current Program Coordinator and Automotive instructor, Robert Lafferty, Automotive instructor, Derek Lyon, Diesel Mechanics instructor, Tom Shelton, Automotive instructor, and Henry Wyckoff, Automotive instructor and previous Program Chair. Approvals of purchasing, curriculum revisions, and most any other plans, evaluations, and assessment processes have included current leadership Dr. Shawn Fouts, Dean of Career and Technical Education and Mr. Ed Nolte Administrator of Industrial Technology.

1. Explain the primary reasons behind the competencies that were selected.

Competencies are selected come from NATEF, an independent organization that evaluates technician training programs. The National Automotive Technicians Education Foundation's duty is to establish a set of standards that include task lists to be completed by students in Automotive, Collision, and Diesel training programs. We use these task lists found in many text books and other publications as competencies.

2. Identify the primary reasons for the assessment tool(s) selected.

These are chosen and developed by members of industry and recognized by industry as a quality measuring tool.

3. Evaluate the assessment approaches to date.

Assessment and evaluations of competencies is an ongoing process. Faculty use task lists and competencies found in text books, industry websites, and other industry publications like magazines to acquire relevant competencies for use in our lesson plans and syllabi.

F.) For student or program/course outcome assessments, review the program's/department's five-year graph(s) of *quantitative* results or provide a brief narrative summary of *qualitative* results.

When the task lists are implemented into a lesson plan and used in a lecture lab setting, the students are demonstrated the task and allowed to practice the task and then tested on how well they can do the task. The instructor evaluates how well the student performs the task and records the result in the form of a daily grade.

1. What changes have been made in the curricula of the program/department because of the analysis of these results?

During the past 5 years several curricula changes have been made in this group of programs and are documented in the Amarillo College electronic archives, <http://www.actx.edu/archives>.

In Sept. of 2010 all three programs had an increase in fees for consumable supplies to keep pace with actual expenses. Program managers and the Business Office got together and developed a process to identify courses with consumable supplies and attach appropriate fees.

In February of 2011 the automotive program submitted a request to increase the number of contact hours in several courses. The Automotive courses Electrical, Electronics, Brake Systems, and Engine Repair all needed an increase in hours to effectively cover the course material and update the instruction methods. The

requests were approved by the curriculum committee and archived.

The Diesel program has omitted a Diesel Fuel Systems course because of the outdated fuel pump material it covered.

G.) Review the five-year graph(s) of course completions for the program/department.

1. Explain any increase or decrease that is more than a one-year anomaly.

Industrial & Transportation Tech Division	Year of Record					
Program	2006	2007	2008	2009	2010	2011
ABDR.CERT.ABRT Automotive Collision Technology	31	24	21	23	22	25
AUMT.AAS Automotive Technology	56	48	39	41	53	59
AUMT.CERT.CHSS Automotive Technology-Chassis	1		1	7	3	5
AUMT.CERT.DFS Automotive Technology-Diesel		1				
AUMT.CERT.PTRN Automotive Technology-Power T	31	28	26	16	21	20
DEMR.CERT.BMC Diesel Mechanics Technology-B	11	3	1			
DEMR.CERT.DT Diesel Mechanics Technology-D	20	29	26	44	41	49
DEMR.CERT.TDCJ Diesel Mechanics Technology T	8	19	15	11	16	
Total	158	152	129	142	156	158

2. Provide the program's/department's plan of action for improving any identified problem or results from the implementation of the plan of action.

N/A

H.) Does the program/department provide for alternative methods of awarding credit? (Select all that apply).

Credit by Exam, Credit for Experience, Department Examinations

1. What approaches are used to assure outcomes are comparable to those expected of students who enrolled and completed the course?

I.) For general education and/or core curriculum required by this program/department, identify the relevant competencies approved by the Academic Affairs Committee (see Catalog section entitled Degrees and Certificates: General Education Competencies).

The Automotive, Collision, and Diesel programs contribute to the implementation of the strategic plan by offering a set of core classes to students who enroll in any of the three areas of study. Under goal number one, Expand Student Success, task one Synchronize recommendations for career advising and course registration, we support the task 1.2.1.1.Career and Technical Faculty and Directors develop core curricula for assigned clusters. The five core classes; DEMR 1301 Shop Safety and Procedures, AUMT 1307 Automotive Electrical Systems, AUMT 1310 Automotive Brake Systems, DEMR 1323 Heating Ventilation and Air Conditioning, and ABDR 1327 Suspension Systems, offer the students diversified instruction in all disciplines and a well-rounded knowledge of three industry links.

1. Explain how outcomes for the competencies have been assessed and achieved and provide links to the documentation.

2. Outline a plan for correcting any weaknesses.

J.) Do students/graduates in this program/department have to be certified or licensed?

K.) For all technical programs/departments offering one or more technical programs (Associate in Applied Science or Certificates), review the



program's/department's graphs of the results for job placement during the past five years.

1. Explain any increase or decrease that is more than a one-year anomaly.

There is no job placement data for these programs.

2. Provide a plan of action for the identified problem.

### III. Curricula

A.) Does the program/department have affiliation(s)/agreement(s)/contract(s) with any other entity for the purpose of delivering instructional content?

Yes

1. Review the affiliation(s)/agreement(s)/contract(s), consider Amarillo College's mission, and then make a recommendation to:

Continue As Is

2. Provide an analysis of the review.

These three programs contribute to the strategic plan in task 1.2.1.1.3, Amarillo career cluster directors will train the AC advisors, faculty and area high school career guidance experts on alignment between AC and high school career pathways. There are High school dual credit agreements in place to allow high school students to transition easily into the AC programs from a similar high school program and receive college credit.

B.) How many curricula changes were approved by the Academic Affairs Committee during the past five years?

2

1. Which steps in the curricula change process had faculty involvement prior to submitting the curricula proposal(s) to the Academic Affairs Committee.

C.) Is any program within the department a technical program (e.g. AAS or certificate)?

Yes

1. When was the last advisory committee meeting.

A Transportation Advisory Committee Meeting was held on April 21, 2011.

2. Provide a link to the minutes of the last advisory committee(s) minutes in the Electronic Archives.

<http://www.actx.edu/archives/index.php?module=article&id=90>

3. Provide a link to the appropriate committee membership of the advisory committee(s) in the Electronic Archives.

These programs have a combined advisory board. All members are from area industry and have been chosen for their expertise in our areas. The list of members is located in the Amarillo College website under programs/Career and Technical Education/Industrial and Transportation Technology. Amarillo College faculty and staff attend the meetings as required.

Automotive-<http://www.actx.edu/auto/index.php?>

Collision-<http://www.actx.edu/autocollision/index.php?>

Diesel-<http://www.actx.edu/diesel/index.php?>

### IV. Enrollment Data

A.) After receiving the five-year graph(s) indicating the number of students enrolled in the program/department, by total students, number of full-time equivalents, and number of completers, determine if there is more than a one-year anomaly.

1. If so, provide the faculty and staff analysis of their assessment of the problem.

No problem identified

2. Create an action plan for needed improvement and commendation for any dramatic improvement.

N/A

B.) For programs/departments with majors, review the graphs of program majors and the number of new majors by year.

1. Provide an analysis of the program's/department's faculty and staff assessment of the problem and an action plan for needed improvement and commendation for any dramatic improvement.

Data not available

## V. Resources

### A. Faculty

1.) Review the five-year graph(s) of the student to faculty ratio in the program/department.

a. Explain any increase or decrease that is more than a one-year anomaly.

Typically in these programs the ratio of students to faculty averages 15 to 1. There are however semesters in which enrollment is up or down for various reasons and ratios may change. Even though caps may be put on classes students are not turned away from enrolling in school. If a class has an enormous enrollment it may be split into two classes to keep class sizes manageable for faculty.

b. Provide an action plan for improvement of any identified problem.

No problems

2.) In the database for Roster of Instructional Staff (also known as Roster of Faculty), review the credentials of each full-time and part-time faculty member within the program/department. If any faculty member does not meet the SACS and THECB requirements, evaluate whether additional documentation is significant to grant an exemption.

Gene Buchanan has significant work experience to allow him in his current teaching position. He is currently working toward his Associate degree to upgrade his credentials.

3.) List the names and the last date for all full-time faculty evaluations based on the schedule indicated in the Faculty Performance Review (FPRP).

Gene Buchanan, 3/5/2012

Derek Lyon, 3/5/2012

Henry Wyckoff, 3/5/2012

4.) List the names of each part-time faculty and the last date of evaluation by students and supervisor for each course taught.

Billy Barclay was last evaluated Fall 2011. Since the student evaluations are on-line and voluntary there is not enough data from 3% of students reporting to qualify any documentation received.

5.) Amarillo College's Board Policy Manual defines each faculty member's academic freedom as 'full freedom in the classroom in discussing the subject being taught and to pursue research and publications. However, a faculty member must not attempt to force on students a personal viewpoint and must at all times allow for diversity of opinion.' Has anyone in the program/department filed a grievance for violation of the aforementioned academic freedom?

No

### B. Library

1.) Which of the following library collections/resources/services have been used by faculty, staff and/or students within the past five years? (Select all that apply)

Credit by Exam, Credit for Experience, Department Examinations Other :

On the East Campus of AC, in building S, room 210 contains Automotive and Diesel Service Manuals and related information dating back 10 or more years. This information is accessible to all Amarillo College students and faculty and at times upon request the general public. Room 210 also houses the desktop computers used for Mitchell On Demand, our primary online service information resource. Room 210 is called our "Library".

2.) Which two or three collection/resources/services should be improved to support Amarillo College's mission regarding teaching and service?

1. Graduate placement data

2. Student to teacher ratios

3. Student enrollment by program/ semester and degrees/ certificates received

3.) Does your program/department have discipline accreditation?

No

#### C. Technology and Security/Privacy

1.) After assessing the strengths and weaknesses of the program's/department's access to technology, what improvements would ensure that the students have access and training in the use of technology?

Amarillo College has an exemplary I.T. department. Students, faculty and Staff are all supported 100% with up-dated desktops, laptops, and computer labs by our I.T. staff. The Automotive, Collision, and Diesel Programs have a shared computer lab in building S with 12 desktop computers. These computers have internet access and we subscribe yearly to "Mitchell On Demand", an online service manual, used for locating repair specifications, instructions, and service information for cars, trucks and heavy equipment. The programs also have two "ERGOTRON" roll carts with laptops that have wireless internet for use in the lab areas to access the service information. Building S has wireless internet throughout installed and supported by AC's I.T. staff. Students are trained how to use hand held computers commonly known as Scan Tools that are connected to vehicles for troubleshooting in the programs as part of the curriculum. Suggestions for improvement to student access and training in the use of technology are not necessary right now.

2.) What improvements would ensure that students use technology?

Students have to use technology in these programs in order to graduate and have marketable skills.

3.) Review program/department operations. Does any operation present the possibility for violations of security, confidentiality, or integrity of student records?

No

#### D. Support Services for Students

1.) Which support services need to be strengthened to better serve students in this program/department?

N/A

a. Explain what aspects of the services need to be strengthened.

2.) Describe any indicators or problems that prevent a healthy, safe and secure environment for the students, faculty and staff of this program/department.

There are no indicators or problems that prevent a healthy and safe environment within these programs.

3.) Describe any indicators or problems that hamper adequate physical facilities, both on and off campus, to meet the needs of the program/department.

#### VI. Budget

A.) Which program/department outcomes have resulted in budget requests to date?

The budget requests for these programs are directly related to improving the quality of training aids and equipment. We are working to build training programs with 21st century equipment that will attract more students and promote more support from industry leaders and business owners. The PET forms for these programs all mention "up-dated equipment". Although the college suffered a major cut in state funding we are still hopeful for grant money and any other source of funding that will allow for major purchases. Budgets that are currently in place are somewhat adequate for consumable supplies and smaller affordable items needed for the programs. One mention from the PET forms is "shared division budgets" that shows a working partnership between like programs. Some decisions about purchases are made with input from several like programs working together to buy equipment that will benefit more than one program. In order to use budgets wisely, get what we need, and save money, we must put our heads together and work together.

B.) Project the program's/department's strategic initiatives for the next five years based on the program's/department's outcomes.

Future plans for these programs are to secure contracts to train industry technicians which would in turn put extra money in our budgets for Capital equipment. Another plan is to

seek federal monies through grants. We are continuously aware of efforts to save money by careful choice of vendors we purchase from, limiting purchases to "need" only, and again sharing equipment among like programs when possible.

**VII. Publications**

A.) If the program/department publishes any advertising or recruitment documents (electronic or paper), do the documents accurately represent Amarillo college and the program/department?

Yes

B.) Does the program/department publish any documents (electronic or paper) with references to SACS accreditation?

Yes

1. Are the references in compliance with SACS approved statement?

Yes

**VIII. Other**

A.) State any additional comments/concerns which may impact this program/department during the next five years.