UNIVERSITY OF HAWAI`I COMMUNITY COLLEGES
ANNUAL INSTRUCTIONAL PROGRAM REVIEW
PROCEDURES, COMPONENTS, AND MEASURES

Automotive Mechanics Technology

Introduction:

Program Mission

The mission of the Automotive Mechanics Technology Program is to prepare students for successful employment as an automotive mechanic.

Program History

The Automotive Program was started in 1941 to meet the community's growing need for automotive technicians. It has consistently enjoyed high student interest and demand for its graduates. Students may earn a 42 credit certificate of achievement and a 63 credit Associates in Applied Science degree. Students are encouraged to take the ASE exam but it is not a requirement for the program. The ASE exam is conducted by the National Institute for Automotive Service Excellence and is a nationally recognized credential.

Program Student Learning Outcomes

Upon successful completion of the automotive mechanics technology program, students are prepared to:

1. Demonstrate proper work attitudes and work habits.
2. Utilize appropriate safety practices at all times.
3. Demonstrate the knowledge and skills necessary to diagnosis and repair typical problems encountered by owners of vehicles
4. Perform routine maintenance functions on vehicles
5. Effectively utilize and comprehend online repair manuals
6. Exercise good judgment when making decisions related to work, school, or life in general
7. Appreciate their heritage and show respect for cultural differences
8. Choose an appropriate career path based on knowledge of the automotive industry and individual strengths and weaknesses

Part I. Quantitative Indicators for Program Review

	AY 04-05	AY 05-06	AY 06-07
AMT			
1. Annual new and replacement positions in the State	4107	4107	4107
2. Annual new and replacement positions in the County	103	103	103
3. Number of majors	55	51	53
4. Student Semester Hours for program majors in all program	444	420	504

classes			
5. Student Semester Hours for Non-program majors in all program classes	0	0	0
6. Student Semester Hours all program classes	444	420	504
7. FTE Program enrollment	29.6	28	33.6
8. Number of classes taught	7	7	7
9. Determination of program's health based on demand (Health, Cautionary, or Unhealthy)	Healthy	Healthy	Healthy
10. Average Class Size	19	18.29	21.29
11. Class fill rate	95%	91.43%	106.43%
12. FTE of BOR appointed program faculty	2	2	2
13. Student/Faculty ratio	27.5:1	25.5:1	26.5:1
14. Number of Majors per FTE faculty	34.38	31.88	33.13
15. Program Budget Allocation (Personnel, supplies and services, equipment)	$82,262.00	$82,068.00	$83,072.00
16. Cost Per Student Semester Hour	$185.27	$195.40	$164.83
17. Number of classes that enroll less than ten students	0	0	0
18. Determination of program's health based on Efficiency (Healthy, Cautionary, or Unhealthy)	Healthy	Healthy	Healthy
19. Persistence of majors fall to spring	83.64%	84.31%	86.79%
20. Number of degrees earned (annual)	5	12	19
21. Number of certificates earned (annual)	9	7	16
22. Number of students transferred (enrolled) to a four-year institution in UH	0	0	0
23. Perkins core indicator: Academic Attainment(1P1)	53.85%	75.00%	76.47%
24. Perkins core indicator: Technical Skill Attainment (1P2)	86.67%	95.24%	94.44%
25. Perkins core indicator: Completion Rate (2P1)	46.67%	52.38%	66.67%
26. Perkins core indicator: Placement in Employment Education, and Military (3P1)	100.00%	100.00%	72.73%
27. Perkins core indicator: Retention in Employment (3P2)	100.00%	100.00%	100.00%
28. Perkins core indicator: Non Traditional Participation (4P1)	12.20%	9.80%	10.42%
29. Perkins core indicator: Non Traditional Completion (4P2)	12.50%	7.14%	15.38%
30. Determination of program's health based on effectiveness (Healthy, Cautionary, Or Unhealthy)	Healthy	Healthy	Healthy
31. Determination of program's overall health (Healthy, Cautionary, or Unhealthy)	Healthy	Healthy	Healthy
32. Number of FTE Faculty	1.6	1.6	1.6

Part II. Analysis of the Program

The program is healthy. Demand based on new and replacement positions in the county is considerably higher than the number of majors or graduates. Industry support also indicates strong demand for graduates. Number of degrees and certificates earned increased significantly in the three year period. The average class size and fill rate positively increased for the most recent reporting period along with FTE program enrollment while the cost per students semester hour (SSH) has decreased. Academic and technical skill attainment as well as completion rates have remained steady at an acceptable percentage for the three year period.

Significant Program Actions (new certificates, stop-out; gain/loss of positions, results of prior year's action plan)

Action Plan 2006-07	Status
1. Actively seek funds to replace the alignment system damaged beyond repair in the 2000 flood. It is an integral part of the minimum competency for the suspension and alignment module. Faculties have been signing off students as having passed the competency since it isn't the students' fault the equipment is not available. A lecture on the topic and blackboard drawing is no substitute for hands on application. This is an essential course requirement. Cost is $75,000.	Funds have been allocated from the RTRF account to purchase the alignment system. The purchase orders should be issued in early 2008.
2. Revise program level student level outcomes and develop course level outcomes.	This is in process.
3. Develop and or document assessment strategies for student learning outcomes.	This is in process
4. Utilize technology to teach students about repairs – The program will use *Mitchell On Demand*, a computer based repair manual that is commonly used in the industry. Cost is $4,000.	*Mitchell on Demand* is currently being used. The subscription needs to be renewed 2008-09.
5. Seek funds to update scan tool which is a vital part of the engine performance module. Newer model cars require the updated tool. Cost is $12000.	This is still a priority.
6. Request funds for a complete tool set. Instructors currently supply their personal tools for student use, $50,000.	Funds for replacement tools are being requested in the program's comprehensive program review.
7. Seek funds to purchase a transmission engine cradle. This is a new piece of equipment necessitated by newer model cars whose transmission comes out with the engine, $5,000.	This is still a priority.
8. Attend NATEF event. NATEF is the National Automotive Technicians Education Foundation, a non profit foundation responsible for the automotive program evaluation process and makes recommendations for ASE program certification based on the evaluation. $3,000	This is a priority professional development event.
9. Request funds to replace air hoist lifts. The existing lifts are starting to give trouble and	This is still a priority.

if the cylinder leaks it would be an EPA problem. The program has two air lifts; now a days people use above ground hoists; the program has two above ground hoists so is requesting a third above ground hoist to replace one of the two air lift hoists $10,000	
10. Determine if the program can pay for the state licenses faculty have had to purchase personally and for their ASE certification exams; without the licenses the repair facility could not do live jobs; $600	We submitted license renewal requisitions. They were returned by the Business Office with a note that APM A8.225, "Items Not To Be Purchased" says professional fees are not to be purchased.

Part III. Action plan

1. Complete purchase of the alignment system and get it installed prior to the start of fall 2008.
2. Review course level outcomes and submit necessary curriculum forms to update course outlines and syllabi.
3. Develop and or document assessment strategies for student learning outcomes.
4. Develop a system to track the results of students taking the ASE exams.
5. Request funds to purchase needed equipment and tools, estimated cost of replacement and new equipment/tools is $56,000.
6. Attend a NATEF event.

Part IV. Resource Implications (physical, human, financial)

Item	Rational	Estimated Cost
1. Alignment system	*Note: Paperwork to purchase this is system is in progress. It is being included as a contingency since a purchase order has not been issued or funds encumbered.* An alignment system is an integral part of the minimum competency for the suspension and alignment module. Faculty sign off students as having passed the competency since it isn't the students' fault the equipment is not available. A lecture on the topic and blackboard drawing is no substitute for hands on application. This is an essential course requirement.	$75,000
2. Renew *Mitchell On*	*Mitchell on Demand* is commonly used	$4,000 for 3 year

Demand, a computer based repair manual, subscription	in industry. It takes the place of hard copy repair manuals.	subscription
3. New model scan tool	Newer model cars require an updated tool. This tool is a vital part of the engine performance module.	$12,000
4. Replace tools	Tools replacements have not occurred in several years. The automotive mechanics field is tool intensive and tools need to be updated as changes occur in vehicles.	$10,000
5. Transmission engine cradle.	This is a safety issue. Newer model cars have transmissions that come out with the engine. The program currently uses a make-shift pulley system which is a hazard.	$5,000
6. Professional development	Attend NATEF event. NATEF is the National Automotive Technicians Education Foundation, a non profit foundation responsible for the automotive program evaluation process. It is important for faculty to attend this event periodically to stay current with industry trends.	$4,000
7. Two above ground hoists	Existing air lifts are outdated and are starting to give trouble; if the cylinders leak, it will create an EPA problem. Industry is moving to above ground hoists; the program needs to replace two existing air lifts with above ground hoists	$10,000
8. Hot water pressure washer	The program's sole pressure washer is leaking. Average life is 2-3 years; the existing washer is 7 years old and needs to be replaced. This is a tool used daily.	$3,000
9. Air Conditioning Recovery and Charging Station	Current station works sporadically. This is an essential piece of equipment.	$5,000
10. Backup system for *Mitchell on Demand*	The program has only one system for its online repair manual, Mitchell on Demand. When it goes down, almost all work in the shop comes to a halt. A backup system is being requested.	$3,000