

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

**Automotive Mechanics Technology**

Introduction:

Program Mission Statement and brief description of the program including a listing of program level student learning outcomes.

The mission of the Automotive Mechanics Technology (AMT) Program is to prepare students for successful employment as an automotive mechanic. The AMT Program offers a 42 credit Certificate of Achievement and a 63 credit Associates in Applied Science (A.A.S.) degree. Students completing the A.A.S. degree are ready for the ASE exam and although it is not a requirement for the program, students are encouraged to take the exam. The ASE exam is conducted by the national Institute for Automotive Service Excellence and is a nationally recognized credential.

Program 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 diagnose 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

**Annual Report of Program Data for Automotive Mechanics Technology  
HAW CC Program Major(s): AMT**

Demand Indicators		Fall of Year		
		2005	2006	2007
1	New & Replacement Positions (State)	79	79	134
2	New & Replacement Positions (County)	17	17	25
3	Number of Majors	51	53	48
4	SSH Program Majors in Program Classes	420	504	444
5	SSH Non-Majors in Program Classes	0	0	0
6	SSH in All Program Classes	420	504	444
7	FTE Enrollment in Program Classes	28.00	33.60	29.60
8	Number of Sections Taught	7	7	7

**Demand Health**  
Healthy

Efficiency Indicators		Fall of Year		
		2005	2006	2007
10	Average Class Size	18.29	21.29	18.57
11	Fill Rate	91.43	106.43	92.86
12	FTE BOR Appointed Faculty	2.00	2.00	2.00
13	Majors / FTE BOR Appointed Faculty	25.50	26.50	24.00
14	Majors / Analytic FTE Faculty	31.88	33.13	30.00
14a	Majors / Analytic FTE Faculty @ 12 cr.	25.19	26.17	23.70
15	Program Budget Allocation ('07 @ 12cr.)	\$82,068.00	\$83,072.00	\$105,093.00
16	Cost per SSH ('07 @ 12cr.)	\$195.40	\$164.83	\$236.70
17	Number of Low-Enrolled (<10) Sections	0	0	0

**Efficiency Health**  
Healthy

Effectiveness Indicators		Fall of Year		
		2005	2006	2007
19	Persistence (Fall to Spring)	84.31	86.79	85.42
20a	Number of Degrees Earned (Annual)*	5	12	19
20b	Number of Certificates of Achievement Earned (Annual)*	9	7	16
21	Number Transferring (to UHM, UHH, UHWO)	0	0	0
Perkins - Campus Actual **				
22	1P1 Academic Achievement	75	76.47	80.95
23	1P2 Vocational Achievement	95.24	94.44	86.36
24	2P1 Completion	52.38	66.67	77.27
25	3P1 Placement Employment/Education	100	72.73	91.67
26	3P2 Retention Employment	100	100	90.91
27	4P1 Non Traditional Participation	9.8	10.42	6.82
28	4P2 Non Traditional Completion	7.14	15.38	5.56
Perkins - State Standards **				
22	1P1 Academic Achievement	81.81	81.92	81.87
23	1P2 Vocational Achievement	90.00	90.00	90.42
24	2P1 Completion	36.00	37.33	38.17
25	3P1 Placement Employment/Education	71.00	71.72	71.07
26	3P2 Retention Employment	90.00	92.00	92.00
27	4P1 Non Traditional Participation	14.81	14.60	14.60
28	4P2 Non Traditional Completion	12.86	12.73	12.19
29	Faculty FTE Workload @ 12 cr.	2.03	2.03	2.03

**Effectiveness Health**  
Healthy

<b>Overall Program Health</b>	<b>Healthy</b>
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\*All degrees and certificates are counted based on fiscal year.

## Part II. Analysis of the Program

Strengths and weaknesses in terms of demand, efficiency, and effectiveness based on an analysis of data.

Overall the program is Healthy. There are 1.92 majors for every new and replacement position in the county (48/25). This ratio indicates a Demand score of Healthy. The fill rate is 92.86% and majors to FTE BOR appointed faculty is 24; both Healthy indicators. Number of degrees and certificates earned increased significantly in the three year period. The ratio of degrees earned in relation to new and replacement positions in the county is .76, a Healthy indicator. Persistence fall to spring have remained steady at Healthy percentages for the three year period.

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

<b>Action Plan 2007-2008</b>	<b>Status</b>
1. Complete purchase of the alignment system and get it installed prior to the start of fall 2008.	Completed
2. Review course level outcomes and submit necessary curriculum forms to update course outlines and syllabi.	In progress
3. Develop and document assessment strategies for all program learning outcomes.	In progress
4. Develop a system to track the results of students taking the ASE exams.	In progress
5. Utilize technology to teach students about repairs – The program will use <i>Mitchell On Demand</i> , a computer based repair manual that is commonly used in the industry. \$5,000.	Currently being used but subscription needs to be renewed in 2010
5. Request funds to update scan tool which is a vital part of the engine performance module. Newer model cars require the updated tool. \$12,000.	This is still a priority item
7. Request funds for a complete tool set. Instructors currently supply their personal tools for students use. \$50,000.	Received some funds from comprehensive program review but not enough. This is still a priority item in progress
8. 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 item

<p>9. Request funds to replace air hoist lifts. The existing lifts are starting to give trouble and if the cylinder leaks it would be an EPA problem. The program has two air lifts which are outdated. Above ground hoists are now being used. 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</p>	<p>This is still a priority item</p>
<p>9. 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 evaluations. \$4,000</p>	<p>This is a priority professional development activity</p>
<p>10. Request funds to replace hot water pressure washer. Washer is broken and parts are not available. Washer is used in all phases of lab assignments. \$4,000.00</p>	<p>This is still a priority item</p>

Part III. Action plan

1. Revise program learning outcomes and develop course learning outcomes and have validated by Program Advisory Council
2. Review course level outcomes and submit necessary curriculum forms to update course outlines and syllabi.
3. Explore and research incorporating Hybrid technology into the curriculum. Make changes to curriculum if necessary.
3. Inquire ways in which program can pay for the state licenses faculty have had to purchase personally for their ASE certification exams; without the licenses the repair facility could not do live jobs. \$600

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

Item	Rationale	Estimate Cost
<p>Replace air compressor</p>	<p>Existing air compressor broke unexpectedly; this is necessary to the everyday activities of the lab. This equipment is essential because 95% of our lab equipment uses compressed air to operate.</p>	<p>\$18,000</p>

Mitchell-On-Demand renewal.	This computer based repair manual will expire at the beginning of 2010. This is required in all phases of our curriculum--lecture and lab and used by all students daily.	\$5,000
Replace transmission jack	Existing jack is broken and parts are not available for repair. This equipment is essential for use in all phases of engine, powertrain & autotrans courses. Without this equipment students cannot safely complete their assignment in these areas.	\$3,500
Replace hot water pressure washer.	Washer is broken and parts are not available for repair. Washer is used in all phases of lab assignments. Without this equipment our program will not meet environmental regulations.	\$4,000
Replace scan tool.	Current scan tool is outdated. Students must have skills in usage of <b><u>current</u></b> scan tool usage. Industry demands that entry level employees have met these requirements. This equipment will be used daily in all phases of our curriculum.	\$12,000
Replace tools	Received monies from comprehensive program review to purchase some tools but more are needed. The automotive mechanics field is tool intensive and tools need to be updated as changes occur in vehicles.	\$10,000

<p>Replace transmission engine cradle</p>	<p>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.</p>	<p>\$5,000</p>
<p>Professional Development</p>	<p>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.</p>	<p>\$4,000</p>
<p>Two above ground hoists</p>	<p>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</p>	<p>\$10,000</p>