

Advanced Technology Division

Automotive Technology

Unit Plan 2004 - 2005





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Part I. Alignment with the College

1) <u>Core Values</u>

The automotive technology program is a credit instructional program and has been offered at Lane Community College since 1976. The program is administered under the Office of Instruction and Student Services through the Advanced Technology Division. This program is centrally aligned with the College's strategic directions, core values, and learning centered principles.

Learning: Learning is both theoretical and applied. Student learning progresses from basic to advanced technical, academic and employability skills.

Diversity and Accessibility: The program faculty welcome students from diverse backgrounds. Students with special needs are accommodated with appropriate supplemental learning technologies and experiences.

Innovation: Faculty maintain their expertise in the field and incorporate advanced technologies in the curriculum. The faculty has made a commitment to maximize the use of innovative instructional technologies to transform the curriculum.

Collaboration and Partnership: The faculty work very closely with their program advisory committee. This committee is a representation of active community business partners who provide advice and program support. The automotive technology faculty also work very closely with other divisional programs, especially diesel, automotive technology, aviation maintenance and drafting.

Integrity: The program faculty has demonstrated a high degree of integrity. They are openly accountable to perform according to the policies, procedures and expectations of the College, the division, the advisory committee, and most importantly, the students.

Transforming Students' Lives The automotive technology program is a Foster the personal, professional, and intellectual professional technical education credit program growth of learners by providing exemplary and that provides career learning and counseling. innovative teaching and learning experiences and The program includes both classroom and student support services. industry equivalent laboratory instruction using current equipment and technologies. The curriculum provides instruction in employability, Commit to a culture of assessment of programs, applied academic and technical skills. services and learning. Position Lane as a vital community partner by The program and course outcomes are assessed empowering a learning workforce in a changing using multiple measures including: attainment of economy. program outcomes, core abilities and learning college principles. Each course has identified specific assessment methods including: technical skill demonstration, group projects, research, portfolios, written tests, etc. The program has an active advisory committee, with representation from the employer community. The program works closely with other credit and non-credit programs to facilitate training a "learning workforce".

2) <u>Strategic Directions</u>

Transforming the Learning Environment	This is an inclusive learning-centered program
Create a diverse and inclusive learning college:	that actively seeks and responds to diversity in its
develop institutional capacity to respond	students and staff.
effectively and respectfully to students, staff, and	The fearly and the and maintain the heat lagration
community members of all cultures, languages,	I ne faculty create and maintain the best learning
classes, races, genders, ethnic backgrounds,	environments possible, within their existing
religions, sexual onemations, and abilities.	abtaining their advectional goals Instructors in
Create onbance and maintain inviting and	this program must constantly renew and improve
welcoming facilities that are safe, accessible	their curriculum and learning environments to
functional well-equipped aesthetically appealing	align to the industry training standards
and environmentally sound	angh to the moustly training standards.
Transforming the College Organization	The automotive technology program is constantly
Achieve and sustain fiscal stability	assessing its operational efficiency and
Achieve and Sustain insear stability.	effectiveness. The program has been developing
Build organizational capacity and systems to	operating benchmarks (performance indicators)
support student success and effective operations	by which it can compare its actual to its planned
	operations This methodology provides the basis
	for analyzing deviations and trends, identifying
Promote professional growth and provide	causes, and formulating solutions.
increased development opportunities for staff	3
both within and outside the College	The faculty in the automotive technology program
	have continuously developed their knowledge,
	skills and abilities as instructors and as industry
	experts.

3) <u>Learning Centered Principles</u>

Lane provides opportunities for transformation through learning.	The primary learning outcome of the automotive technology program is to provide instruction and hands-on training to enable students to obtain career employment. The program prepares students by focusing on both technical and employability skill development. Qualifying for entry-level and advanced employment transforms the student's life.
Lane engages learners as active partners in the learning process.	Students must actively demonstrate their technical and employability skills. Students initiate and manage their progress through the learning process.
Lane creates a learning environment that motivates and inspires students to recognize their responsibility for their own learning.	Students recognize their active involvement may lead to high-paying career positions. The learning environment includes both classroom and laboratory experiences that emulate the workplace.
Lane offers multiple options for learning based on proven and innovative theories and methods that address the needs of diverse learners.	Learning methods include lectures, reading, writing, demonstrations, laboratories, problem solving, researching, building, diagnosing, repairing, modeling, computer-based, cooperative work experiences, group/team projects, formal and self-assessment. Students receive appropriate learning accommodations to ensure success in the program.
Lane commits to a culture of assessment of	The automotive technology program conducts

Part I – Alignment with the College 1/12/2005

programs, services and learning, honoring the values of intellectual freedom, community responsibility and student need.	both formative assessment of a student's knowledge, employ-abilities, technical skills and academic skills; and, summative assessment based on industry or national standards. Faculty assess the stated achievement of the program learning and operational outcomes. Advisory committees provide additional assessment on the relevancy of the curriculum and the quality of the student completers.
Lane fosters knowledge and appreciation of diversity among staff and students and encourages pluralism and intercultural competence. Lane engages learners from diverse cultural and social contexts.	The mission of the automotive technology program is to transform student lives through learning. The "student" should be representative of the diversity of the community. The program faculty work closely with the college's cultural and diversity programs and initiatives.
Lane is committed to both individual and organizational learning.	Program students, faculty, staff, administrators and community members are committed to learning. Each organizational member gains knowledge and intrinsic reward for actively engaging in learning.
Lane students and staff are a community of learners, all of whom contribute to learning.	The automotive technology program faculty are continuously engaged in keeping current with the new advances in the industry. They are active learners engaged with students and other colleagues to promote a community of learners.
Lane promotes open communication among staff, students and the community within and across organizational and physical boundaries.	The students, faculty and staff have open access to many forms of operational and governance communications: e-mail, The Daily, the web, meetings, forums, governance councils, etc.

Part II. Unit Description

1) <u>Unit Mission/Vision</u>

The automotive technology program aligns with the College's mission. Lane is a learning-centered community college that provides affordable, quality, lifelong educational opportunities that include: Professional technical and lower divisional college transfer programs.

The automotive technology program's vision is the same as the College's vision: *Transforming lives through learning.*

2) <u>Catalog Description</u>

Program Description

The Automotive Technology program is an occupational, preparatory, two-year Associate of Applied Science degree and/or a two-year certificate of completion program.

Automotive Technology is accredited by the National Automotive Technology Educational Foundation. This program features state-of-the-art laboratories where students learn how to diagnose and repair current vehicles using advanced diagnostic tools and equipment. The advanced equipment and expertise of the faculty make Lane's Automotive Technology program the best way to enter the field.

Faculty in the program bring considerable field experience to the classroom and regularly attend workshops at manufacturer training centers to help them keep up with technological changes in the industry.

The program provides classroom instruction, considerable on-car training in the laboratories, and technical field experience that prepares you for employment in the automotive service field. Program course work includes: engine, automotive electrical, electronic, brake, fuel and emission systems; automotive heating and air-conditioning; performance and drivability; automatic and manual transmissions/transaxles; and alignment, steering and suspension systems. Cars and trucks on the road today have become increasingly complex. With the addition of on-board computers and other sophisticated equipment, few people are able to repair maintain their own cars, putting a greater value on the highly skilled automotive service technician.

Graduates of this program begin careers as automotive service technicians working at companyowned repair stations, fleets or independent garages, gas stations, or new car dealerships.

This training can lead to employment in entry occupations in the automotive service and repair field. Journeymen earn approximately \$30,000 to \$60,000 annually. With an ever-expanding number of makes and models of autos, the demand for auto technicians who have a broad background of course instruction and training is constantly increasing.

New students can enter the program at the beginning of fall, winter, or spring terms. All interested applicants should complete placement testing (Assessment & Testing Office, Building 1) in reading, writing and math. Take testing results to the program orientation and/or advisor/counselor for assistance with course selections. Restricted facilities limit the number of students admitted to this program. Students are selected on a first-come, first-served basis by or date of application to this program.

Purpose

To prepare the graduate for employment as an automotive service technician working at companyowned repair stations, fleets, independent garages, gas stations, or new car dealerships.

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Part II – Unit Description 12/17/04

Learning Outcomes

The graduate will:

- use automotive service resources to complete lab projects and become familiar with computer accessed information, internet accessed information and information available in print related to automotive repair.
- be able to perform computations for gear ratios, engine displacement, electrical circuits, power output, vehicle alignment angles, conversion between the metric system and standard system, and use of precision measuring tools.
- diagnose and repair current vehicles using advanced diagnostic tools and equipment.
- successfully complete ASE certification tests.
- demonstrate and use industry safety standards.

Employment Trends

Reasonable employment opportunities exist for competitively trained workers. Employment in this industry is estimated to be much larger than average. Growth is projected to be about as fast as average. Annual new openings are expected to be much higher than average. Those with an associate degree have a competitive advantage in this labor market.

Wages

Statewide, \$10 hourly to start, \$16 median hourly, \$12-20 middle range, and \$34,438 average annually.

Costs in Addition to Tuition (estimates)

Books - \$1,100 Tools - \$550-700 Fees - \$1,000 Total - \$2,650-2,800 Fees are subject to change without notice.

Program Certification

National Automotive Technology Educational Foundation, a nonprofit foundation within the National Institute for Automotive Service Excellence.

Prerequisites

Minimum placement scores - Reading 68, Writing 64. A high school diploma or equivalent is recommended for all applicants to this program.

Criteria Used for Admission

Students may enter this program fall, winter or spring terms. For consent to enroll in major courses, students must attend a program orientation for fall terms (dates available in Counseling or the Students First! Center) or contact advisor/counselor in winter and spring terms.

3) <u>History/Significant Program Events</u>

How did your instructional unit evolve at Lane? This program has been offered at the college since 1976.

What significant events have marked your growth?

- 1) Renovated the automotive shop (new lifts).
- 2) Created a program entry student application process.
- 3) Differential pricing and significant tuition increases have reduced the waiting list.

Do you have a system for maintaining an archival history of your unit?

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Part II – Unit Description 12/17/04

General historical information relies on oral transmission. Hard copy documentation is limited to instructors' record keeping of student class performance and classified personnel's recordation of budgetary information.

Do you have annual events that are representative of your unit's goals or teaching methods? Students are successful in passing the NATEF area certification. The program is now participating in the VICA competitions.

4) <u>Degrees and Certificates</u>

Two-Year Associate of Applied Science Degree	Credits
AAS Program Total	106 - 110
First Year	
Fall	
Engine Repair AM	12
Applied Geometry for Technicians MTH 076 or higher	4
Total Credits	16
Winter	
Suspension and Steering AM 147	6
Manual Drive Trains and Axles AM 149	6
Wire Drive Welding 1 WLD 143	4
Workplace Safety HE 125 or First Aid HE 252 or PE/Health requirement	3
Total Credits	19
Spring	
Automatic Transmissions/Transaxles AM 242	12
Shielded Metal Arc Welding 1 WLD 121	4
Applied Algebra for Technicians MTH 086 or higher	4
Total Credits	20
Second Year	
Fall	
Brakes AM 143	8
Heating and Air Conditioning AM 246	4
Introduction to College Writing: Workplace Emphasis WR115W	3
Choice of: Concepts of Computing: Information Processing CS 120 or other	3-4
Science/Math/Computer Science requirement	
Total Credits	18-19
Winter	
Electrical and Electronic Systems AM 243	12
Social Science/Human Relations requirement	3
Arts/Letters requirement	3
Total Credits	18
Spring	
Engine Performance AM 244	12
Cooperative Education: Automotive FE 207 or Cooperative Education: A-TAC FE207 or	3-6
Manufacturing Technology MFG 197	
Total Credits	15-18

Two-Year Certificate of Completion	Credits
Certificate Total	97 - 100
First Year	

Fall	
Engine Repair AM 145	12
Applied Geometry for Technicians MTH 076 or higher	4
Total Credits	16
Winter	
Suspension and Steering AM 147	6
Manual Drive Trains and Axles AM 149	6
Wire Drive Welding 1 WLD 143	4
Workplace Safety HE 125 or First Aid HE 252 or PE/Health requirement	3
Total Credits	19
Spring	
Automatic Transmissions/Transaxles AM 242	12
Shielded Metal Arc Welding 1 WLD 121	4
Total Credits	16
Second Year	
Fall	
Brakes AM 143	8
Heating and Air Conditioning AM 246	4
Introduction to College Writing: Workplace Emphasis WR 115W or higher	3
Total Credits	16
Winter	
Electrical and Electronic Systems AM 243	12
Social Science/Human Relations requirement	3
Total Credits	15
Spring	
Engine Performance AM 244	12
Cooperative Education: Automotive FE 207 or Cooperative Education: A-TAC FE207 or	3-6
Manufacturing Technology MFG 197	
Total Credits	15-18

Cooperative Education (Co-op) offers students college credit and a grade for on-the-job work experience related to their educational and career goals. Through Co-op a student can integrate theory and practice, develop skills, expand career knowledge, and make contacts for the future. Work schedules and work sites vary. Under the supervision of the automotive technology Co-op Coordinator and with instructor consent, a maximum of 18 Co-op credits may be earned in lieu of required fabrication/technology course credits.

5) Organizational Structure

Board of Education

President

Vice President of Instruction Associate Vice President of Instruction

Division Chair Advanced Technology

Faculty Automotive Technology Program

6) <u>Staff/Faculty</u>

Name	Tom Kadash
Classification	Full-Time Faculty
Year Hired	1998
Degrees/Credentials	

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Part II – Unit Description 12/17/04

Name	George Hart
Classification	Full-Time Faculty
Year Hired	2001
Degrees/Credentials	

Name	Ed Glazier
Classification	Full-Time Classified
Year Hired	1999
Degrees/Credentials	

7) <u>Student Profile</u>

Please refer to the Program Learning Outcomes, Goals and Performance Indicators on page 10.

8) Facilities and Equipment

The automotive technology program shares building 9 with the diesel technology program.

What are its strengths? The shop facility is outstanding.

Its challenges?

1) The classrooms are too small and in a different building than the shop.

What are your utilization ratios?

The facility has capacity to handle more students. Funding additional faculty is the major constraint to maximizing the use of the facility.

Provide a copy of your equipment inventory.

Please refer to the Equipment Inventory Spreadsheet on page ...

What are your equipment strengths?

1) The program has equipment adequate to teach its curriculum. That is, it can teach most processes utilized by industry.

Challenges?

The program has an equipment inventory of \$381,900 (not including lifts and compressors). This equipment has an expected life of between 1 and 20 years which means replacement and upgrades should be budgeted at \$41,658 per year. Additionally, new technologies emerge that require new equipment funding. The College currently does not have general funds for non-capital equipment replacement.

Do you have any plans in place for equipment replacement? Refer to the Existing Equipment Inventory Spreadsheet on page 26.

9) <u>Budget Profile</u>

Refer to the Program Operations charts on pages 12 and 13.

Program Learning Outcomes, Goals and Performance Indicators

Program Learning Outcomes/Goals	Performance Indicators
1) Demonstrate employability skills required for initial employment and advancement in the industry that include: attendance, proper attire, customer relations, following directions, working in teams, and understanding work rules and ethics.	80% of the first year students will qualify for the "select student" status by receiving a recommendation from a full-time contracted faculty member. 90% percent of the second year students will complete their programs as "select students". Criteria to qualify for the "select" status will be determined and published by the faculty prior to the start of the academic year.
2) Demonstrate safe work practices and tool usage while performing operations in a shop environment.	95% of all students will pass a shop safety written and demonstration test.
3) Demonstrate technical skills and knowledge to pass the certification exams in the eight areas of Automotive Service Excellence Standards: Electrical/Electronic Systems, Automatic Transmissions/Transaxle, Manual Drive Trains and Axles, Suspension and Steering, Brakes, Heating and Air Conditioning, Engine Performance, and Engine Repairs.	95% of students who complete the program will have gained necessary competencies in eight ASE major areas to pass the certification exams.
4) Perform computations for gear ratios, engine displacement, electrical circuits, power output, vehicle alignment angles, conversion between the metric system and standard system, and use of precision measuring tools.	95% of the program completers will pass a final program computations examination with a 70% or better score.
5) Use appropriate library and information resources to research professional issues and support lifelong learning.	All students will conduct research with citations in a written report in both the first and second year of the program.
6) Diagnose and repair current model vehicles using advanced diagnostic tools and equipment.	All second year students will diagnose and repair, using advanced tools and equipment, a test vehicle with faculty disabled components. All of the disabled components must be identified and properly repaired.
Enrollment Goals	Performance Indicators
Students will have access to the program.	The program will achieve the following student to faculty ratios: R-SFTE / FFTE = 22 : 1 CH-SFTE / FFTE = 16 :1 This means for every funded faculty position 22 reimbursable student full-time equivalents should be enrolled or 16 credit hour student full-time equivalents. The program exceeded the student access goal by achieving a 32.24 to 1 R-SFTE/FFTE ratio, and a 19.34 to 1 CH-SFTE to FFTE ratio.
Students who declare their major in this program will increase as a percentage of the total	FY2004 was the base year. 117 of the unduplicated headcount were declared majors.

students enrolled.	
Program graduates will increase as a percentage of the total students enrolled.	No data available
The percentage of enrolled female students in the program will exceed the percentage of females in the division programs.	12% of students enrolled in the advanced technology division were female.12% of the automotive technology students were female.
The percentage of enrolled non-Caucasian program students will exceed the percentage of the non-Caucasian students in the college.	22% of the automotive technology students are non-Caucasian.
The percentage of program students who complete each term will exceed the college completion rate.	The college completion rate was 83.24%. The program completion rate was 97.65%.
The percentage of program term completers who receive a C- or greater will exceed the college "success" rate.	The college "success" rate was 79.08%. The program "success" rate was 97.6%.

Program Learning Outcomes Assessment Matrix

			Pr	ogra	m C	ours	ses					(General Education						
Automotive Technology	AM 143 Brakes	AM 145 Engine Repair	AM 147 Suspension and Steering	AM 149 Manual Drive Train and Axies	AM 242 Automatic Transmissions/Transaxle	AM 243 Electrical and Electronic Systems	AM 244 Engine Performance	AM 246 Heating and Air Conditioning	AM 280 Cooperative Education*	HE 125 Workplace Safety HE 252 First Aid	WR 115W Intro to College Writing	WLD 121 Shielded Metal Arc Welding 1	Sp 100 Basic Communications	SP 105 Listening & Critical Thinking	SP 218 Interpersonal Communications	CS 120 CONCEPTS OF COMPUTING	CG 203 Human Relations at Work	MTH 076 Applied Geometry for Technicians	EET 129 Electrical Theory 1 Physics Elective
Associate Degree Credit Hours (107 Total Credits)	8	12	6	6	12	12	12	4	3	3	3	4		4		4	3	4	4
Certificate Credit Hours (96 Total Credits)	8	12	6	6	12	12	12	4											
							1						1				- 1	1	
Demonstrate employability skills required for initial employment and advancement in the industry that include: attendance, proper attire, customer relations, following directions, working in teams, and understanding work rules and ethics.	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Р	Р	Ρ	S		Ρ		Ρ		s	Ρ		S
Demonstrate safe work practices and tool usage while performing operations in a shop environment.	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ		Ρ							S
Demonstrate technical skills and knowledge to pass the certification exams in the eight areas of Automotive Service Excellence Standards: Electrica/Electronic Systems, Automatic Transmissions/Transaxle, Manual Drive Traine and Axles, Suspension and Steering, Brakes, Heating and Air Conditioning, Engine Performance, and Engine Repairs.	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	s			s						s	Р
Demonstrate technical abilities in researching, accessing and interpreting written, computer program or web-based reference materials to service and repair automobiles.	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	s		s			Ρ		s			
Perform computations for gear ratios, engine displacement, electrical circuits, power output, vehicle alignment angles, conversion between the metric system and standard system, and use of precision measuring tools.	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	s									Ρ	Ρ
Diagnose and repair current model vehicles using advanced diagnostic tools and equipment.	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	s							s			
Core Abilities			_																
Communicate effectively.	P	P	P	P	P	P	P	P	P		P	S		P		_	Р	S	S
I hink critically and solve problems effectively.	Р	Р	Р	Р	Р	Р	Р	Р	S		S	S		Р		Ρ	Р	Р	P
self-awareness and personal responsibility.	S	S	S	S	S	S	S	S	Ρ					Ρ			Ρ		
sciences.										Р	Ρ	s		Р		Р	Ρ	Р	Р
Learning College Principles																			
Learners are active partners in the learning process.	Р	Ρ	Ρ	Ρ	Ρ	Ρ	Р	Ρ	Ρ										
Learners are self-directed.	P	P	P	P	P	P	P	P	P							_			
Multiple learning options for diverse learners.	3 9	20	3 9	2	2	3	5 9	С С	Р							-			
Learning is substantive and documented.	P	P	P	P	P	P	P	P											
Assessment Methods																			
Technical Skill Performance Observation/Evaluation	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	Р											
Employability Skills Evaluation	S	S	S	S	S	S	S	S	Ρ										
Group Project																_			
l ibrary Research			\vdash	\vdash	\vdash	-			-							+			
Oral Report/Presentation																			
Peer Assessment																			
Portfolio																_	[
Pre and Post Test	\vdash		\vdash			┣—	┣		┣—			<u> </u>	ļ			+			
						-	<u> </u>	-	-			-				+			
Self Assessment																╉			
Written Report																			
Written Tests/Examinations																T			_

P = this is a primary course for meeting the program learning outcome, core ability, learning college principle, or assessment method. S = this course meets some of the program learning outcome, core ability, learning college principle or assessment method.

Unit Performance

Program Operations – Actual to Expected Analysis

		Aut	schnology		
	2003 - 2004 Outcomes	Expected*	Actual	Difference	Analysis
1	Enrollment				
2	Reimbursable Student FTE	53.333	64.480	121%	Enrollment is higher than expected.
3	Credit Hour Student FTE	32.000	38.688	121%	Enrollment is higher than expected.
4	Student Head Count	80	117	146%	Enrollment is higher than expected.
5	Staffing				
6	Full-time Equivalent Faculty	1.934	2.000	103%	Full-time staffing is higher than expected
7	Part-time Equivalent Faculty	0.484	0.000	0%	Part-time staffing is lower than expected
8	Total Faculty FTE	2.418	2.000	83%	Faculty Staffing is lower than expected.
9	Budget				
10	FT Faculty Dollars	103,936	107,461	103%	Expenses are higher than expected.
11	PT Faculty Dollars	15,590	-	0%	Expenses are lower than expected.
12	Lab Assistant Dollars	8,000	20,267	253%	Expenses are higher than expected.
13	Other Payroll Expenses	62,793	62,892	100%	Expenses are equivalent to expected.
14	Materials and Supplies	16,926	14,982	89%	Expenses are lower than expected.
15	Direct Instruction Costs	207,246	205,602	99%	Expenses are lower than expected.
16	Operating Ratios				
17	R-SFTE/Faculty FTE	22.06	32.24	146%	Faculty are serving more students.
18	CH-SFTE/Faculty FTE	13.23	19.34	146%	Faculty are serving more students.
19	Cost / R-SFTE	3,885.86	3,188.62	82%	Cost per student is less then expected.
20	Cost / CH-SFTE	6,476.43	5,314.36	82%	Cost per student is less then expected.
21	Non-tuition Revenues				
22	Course Fees		3,300.00		
23	Differential Fees				
24	Program Fees				
25	Sales		4,427.58		
26	Donations				

Automotive Technology

* Expected calculations are based on the instructional program benchmarks model.

* This program is a medium cost program in the benchmark model.



Program Operating Trends

Automotive Technology

	Operating Data	FY 02	FY 03	FY 04
		Actual	Actual	Actual
1	Full-Time Faculty FTE	2.000	2.000	2.000
2	Part-Time Faculty FTE	0.330	0.000	0.000
3	Total Faculty FTE	2.330	2.000	2.000
4	Student FTE	56.670	58.268	64.480
5	SFTE / FFTE	24.322	29.134	32.240
6				
7	Full-Time Faculty	98,679	106,929	107,461
8	Part-Time Faculty	14,646	0	0
9	Lab Assistant	18,786	19,236	20,267
10	Other Payroll Expenses	58,811	55,483	62,892
11	Materials and Supplies	6,000	6,566	14,982
12	Total	196,922	188,214	205,601
13	Cost per Student FTE	3,475	3,230	3,189





Program Outcomes Analysis

1. How effectively did you fulfill your unit's mission?

The program served 117 students (64.48 reimbursable student FTE). Students who completed the program were able to pass the NATEF ASE certification examinations and gain entry level employment in the local economy.

2. How well did students meet your learning outcomes?

Refer to the Program Learning Outcomes (pages 9 and 10) for the performance indicators. We Identified the performance indicators this year. It is our intent to measure these goals in next year's unit plan. The faculty do qualitatively note that the students met these outcome goals this year.

3. How well did students meet the Core Abilities outcomes?

Refer to the Program Learning Outcomes Assessment Matrix on page 11.

4. How efficiently did you use the resources you were given?

Please refer to the Program Operations: Actual to Expected Analysis on page 12. In summary: Enrollment: 21% greater than expected.

Staffing: 17% less than expected. Budget: 1% less than expected. Cost per Student: 18% less than expected.

This program is doing more with less. It is efficient and effective.

5. How well are you utilizing current technology?

The program has converted much of its curriculum to include computer delivery. The shop technologies are adequate but require replacement and upgrading.

6. How effective was your relationship with your advisory committee in achieving unit goals?

The automotive technology advisory committee met three times last year. The committee is very engaged in the development of the curriculum, placement of students and acquisition of equipment and supplies.

7. How well did you meet faculty and staff goals?

8. Did last year's funded initiatives meet your goals?

The program received funds to replace four oscilloscopes.

Effectiveness:

The new oscilloscopes will provide better and more relevant training.

9. What are the overall unit's strengths?

This program is both efficient and effective. The faculty and facilities are outstanding. The quality of the students is continuing to improve. Students are motivated to succeed because the career employment projections continue to remain very high.

10. What are the overall unit's challenges?

The classrooms are too small and removed from the laboratories.

The existing equipment inventory is not being adequately funded for replacement and upgrading (refer to the Existing Equipment Inventory of page 26.

The student demand exceeds the capacity of the faculty to provide quality instruction. The curriculum is designed

in a manner that is not conducive part-time instructors because of the 6 and 12 credit hour blocks.

11. Program Analysis Findings

Finding 1: The program is exceeding its student learning and operating performance goals.

Finding 2: The automotives technology program needs to move and upgrade its classrooms.

Finding 3: The automotive technology program needs to maintain its laboratory equipment. The total equipment inventory value is \$381,900. The average annual replacement and upgrade cost should average \$41,658.

Finding 4: The automotive program needs to continuously improve its curriculum and operations. The program should acquire new technologies to keep current with advances in automotive and instructional technologies.

Part IV: Projected Performance

Program Initiatives

1. Initiative Title and Identifier (Unit Abbreviation, Fiscal Year, Type, Sequence Number) Division Priority: 1								
Initiative 1: Move and Upgrade the Program's Classrooms								
Automotive Technology, FY 2005, Maintenance, 01 = AT05M01								
2. Linkage to Program Analysis Findings								
Finding 2: The automotives technology program needs to move and upgrade its classrooms.								
3. Describe the Initiative								
Move the two classrooms from building 12 to building 9. The building 9 space has been identified and a cost estimate had been made. The remodel cost will be about \$20,000. Additionally, this request is to upgrade the classroom overhead projector.								

Our current enrollment results in twenty to twenty-five students occupying classrooms with a capacity of about twelve. This results in very crowded and unhealthful conditions for our students. This initiative provides for the remodeling of two existing rooms adjacent to the automotive technology lab to convert them for classroom use. This would provide rooms of more adequate size for the number of students enrolled as well as enhancing their learning opportunity due to the location of these rooms close the lab area where a variety of equipment could be easily brought into the classroom. These rooms can also be utilized by industry trainers who use our facilities.

Replace the overhead projector with an Elmo Visual Presenter. We currently have one of these units which must be shared between two classrooms. We have been using the unit alternating terms which means that each term one classroom and instructor is without any equipment of this type. This is not conducive to a quality learning environment for our students.

4. Requested Resources

Remodel Costs = \$20,000 Elmo Visual Projector = \$3,500

5. Funding Sources

College General Funds (facilities) Instructional Technology Fees (TACT) Carl Perkins

5.1 Alignment to Carl Perkins Act goals?

Student Skills Goal

This initiative will remedy the overcrowding problem. It further facilitates the interactive nature of professional technical education by locating the classroom with the laboratory.

This initiative provides technical enhancement to existing classes through the use of computer based teaching tools.

Work-based Learning Goal

Students will have a better instructional environment to learn the skill standards.

Effect on Profession Technical Education student success?

Students will gain industry specified skills which lead to higher paying employment.

Brief Carl Perkins funding history

The automotive technology program is reliant upon Carl Perkins funding to maintain and enhance its equipment and other instructional resources. This funding has allowed the program to align its capabilities with the needs of the industry for which it trains students. The result is better qualified students, a better and broader relationship with industry and more efficient use of educational time.

5.2 Alignment to Student Technology Fees.

This initiative is seeking TACT funds.

5.3 Curriculum Development

6. Fund, Organization, Account, Program Codes

611300 112000

7. Alignment to the College's goals

This initiative aligns with the following college goals:

- Transforming Students' Lives
 - Transforming the Learning Environment

Program Initiatives

2.	1. Initiative Title and Identifier	(Unit Abbreviation)	, Fiscal Year, Type,	, Sequence Number)
				Division Priority 18

Initiative 2: Replace or Upgrade Existing Program Equipment and Software Automotive Technology, FY 2005, Maintenance, 02 = **AT05M02**

2. Linkage to Program Analysis Findings

Finding 3: The automotive technology program needs to maintain its laboratory equipment. The total equipment inventory value is \$381,900. The average annual replacement and upgrade cost should average \$41,658.

3. Describe the Initiative

What is the need or intended use?

The program has an existing inventory of equipment and software that needs to be replaced or upgraded. Students should have current and operational equipment to ensure they are appropriately trained.

How was that need assessed?

There is a life cycle cost for all equipment and software. Equipment and software required for instructional program must eventually be replaced or upgraded (refer to the Existing Equipment Inventory on page 26).

What is your evidence of the need? The program has an equipment inventory.

Given college resources, is it feasible? Yes. The College should strive to maintain or improve its level of quality in the instructional programs.

Is it an efficient use of college resources? Yes. Funding the life-cycle costs of equipment will minimize the cost of funding critical failures.

What would be the campus location of this request/project? The automotive technology program is located on the main campus building 9.

How many students (per year) will benefit? The program serves approximately 117 students (head count) per year. (64.48 R-SFTE).

How will students benefit?

Students will benefit by learning to industry entry-level how to operate equipment that they will be expected to operate as they obtain employment in the field for which they are being trained. They will benefit by having access to dependable, safe and current technology. They will benefit by learning to work efficiently with efficient equipment.

4. Requested Resources

1) Color Laser Printer for Service Information Systems = \$2,400

This initiative is to provide for the purchase of a networkable color laser printer to replace our black only laser printer. This is needed when we update to the new versions of the automotive service information systems since certain areas of the new systems such as wiring diagrams are now provided in color which makes them much easier to use.

2) Annual Software Updates for Scan Tools (4) = \$5,000

We have four OBD II compatible scan tools which were purchased last year with Perkins Grant funding. The purpose of this initiative is to provide for the purchase of annual software updates for these tools to keep them current. These are the OTC Genesis, Snap-On Modis, Vetronix Master Tech, and Vetronix Tech II. This is necessary to teach students current technology.

3) Engine Analyzers (3) = \$75,000

We current have six old, obsolete engine analyzers, some of which work and some of which are no longer operational. These units will not work on most late model vehicles. We have one newer computer based engine analyzer which is in need of updating. This is the only unit that will work on newer vehicles and will not work on some of the latest models either. We are desperately in need of new analyzers that are compatible with current production vehicles. Since we have twenty to twenty-five students in a class we need at least four modern analyzers to provide a reasonable learning environment.

4) Dynamometer = \$160,000

This initiative will provide for the replacement of our chassis dynamometer in the automotive shop. Our dynamometer is more than thirty years old, has been inoperable for several years, and is a hydrokinetic type, requiring considerable maintenance. We plan to replace it with a nonhydrokinetic design, which minimizes maintenance and provides unlimited service life. Because our industry demands excellent diagnostic skills, we emphasize this area in all automotive classes. Since we are not permitted to drive school vehicles, we are severely handicapped in teaching engine performance and drivability diagnosis. This makes a dynamometer a necessity to properly teach this class.

5) Annual Replacement of Hand Tools = \$ 5,000

Because our students our not expert technicians and are learning the proper use of tools, our lab tools are subject to somewhat higher than normal incidence of breakage and wear. These tools must be replaced as necessary to provide continuing quality learning experience for our students. This initiative is to provide for the annual replacement of tools as needed to maintain the quality of our program.

6) Air Tools (13) = \$3,500

Most of our lab air tools are very old and in poor condition. Modern air tools air lighter weight, faster, more powerful, and quieter than those we have. Many time students are unable to accomplish their tasks with the air tools we have. We are in urgent need of upgrading our air tool inventory for practical and safety reasons. This initiative is to provide for the purchase of thirteen new air tools for the auto tech lab. These include four impact wrenches, four ratchets, an air hammer, two die grinders, a reciprocal saw, two drills, and an angle grinder.

7) Optical Headlight Aimer = \$2,000

Many vehicles built since the early 1990s are not designed so that their headlights can be aimed with mechanical aimers. Since the only aimers we have are the old mechanical type we are not able to train students to use the current technology in this area. Optical aiming equipment can be used to aim these late model vehicles as well as all older vehicles. This is the type of equipment that is rapidly replacing mechanical aimers in automotive service facilities. We need this equipment to keep our program current with industry standards.

8) Training Video/CD Library = \$6,000

We have an extensive assortment of video tapes covering various areas of the automotive service industry. Most of these, however, are quite out of date and are not relevant to late model vehicles. We need to purchase complete sets of tapes or CDs for each of the eight ASE training areas in our Automotive Technology program. These will be used in the classroom and also be available for student use in the auto tech lab to improve learning opportunities.

9) Brake Parts Washers (5) = \$9,000

This initiative provides for the purchase of environmentally friendly water based brake washing units for the auto tech lab. These units help to control hazardous brake dust during brake service procedures. We have rented these units for our brakes classes several times in the past; however, the cost of doing this has become prohibitive. Due to the high cost of renting these units we have recently resorted to using aerosol brake cleaner. This is effective but poses potential health and environmental hazards. The installation of these washers would eliminate these concerns.

10) Tire Changer = \$5,500

We have two tire changers in the auto tech lab. Both of these units are obsolete and worn out. They will not work on many of the wheels on late model vehicles. This initiative provides for the purchase of a modern tire changer

which will handle the tires and wheels found on current vehicles. This will permit our students to be trained on the type of equipment used in the industry today.

11) Refrigerant Identifier = \$1,500

We no longer have a working refrigerant identifier for our auto tech program. This is a basic piece of equipment required by our NATEF standards. Students must be trained in the proper use of this equipment. This equipment is required in all shops that do air conditioning service work. This initiative provides for the purchase of a high quality refrigerant identifier for the auto tech lab.

12) Metal Lathe = \$20,000

We have a small and quite ancient metal lathe in the auto tech lab. This equipment is worn out and no longer capable of doing accurate work. It is also too small to handle many jobs we need to do with it. This initiative provides for the purchase of a larger unit and the required tooling for it. This will permit performing various repair procedures as well as the fabrication of parts and tools in the auto tech lab. This equipment will permit us to teach students basic parts fabrication skills.

5. Funding Sources

Carl Perkins Technology Fees (TACT)

5.1 Alignment to Carl Perkins Act goals?

Student Skills Goal

This initiative will improve technical skills of students by providing opportunity for those students to learn how to operate safe and reliable equipment of a type that they will be expected to operate by their future employers

Work-based Learning Goal

Students should be trained on equipment similar to what they will work with when employed. Employers are seeking employees with knowledge and training on the equipment they have.

Effect on Profession Technical Education student success?

Students will gain industry specified skills which lead to higher paying employment.

Brief Carl Perkins funding history

The automotive technology program is reliant upon Carl Perkins funding to maintain and enhance its equipment and other instructional resources. This funding has allowed the program to align its capabilities with the needs of the industry for which it trains students. The result is better qualified students, a better and broader relationship with industry and more efficient use of educational time.

5.2 Alignment to Student Technology Fees.

This initiative is seeking student technology fees (TACT).

5.3 Curriculum Development

6. Organization and Program Codes

611300 112000

7. Alignment to the College's goals

This initiative aligns with the following college goals:

- Transforming Students' Lives
- Transforming the Learning Environment
- Transforming the College Organization
 - implementing a "life-cycle" approach for funding equipment

Program Initiatives

3.	1. Initia	tive Title	and Identifier	(Unit Abbr	eviation, l	Fiscal \	Year, Type,	Sequence Nu	umber)
								Division P	riority: 24
3.	1. Initia	itive Title	and Identifier	(Unit Abbr	eviation, I	Fiscal Y	Year, Type,	Sequence Nu Division P	umber) riority: 24

Initiative 3: New Equipment, Software and Curriculum to Improve the Program Automotive Technology, FY 2005, Enhancement, 02 = **AT05E02**

2. Linkage to Program Analysis Findings

Finding 4: The automotive program needs to continuously improve its curriculum and operations. The program should acquire new technologies to keep current with advances in automotive and instructional technologies.

3. Describe the Initiative

What is the need or intended use?

The automotive technology program needs to continuously improve its instruction to keep current with advances in the industry.

How was that need assessed?

Faculty assess the need to adapt and or create new instructional opportunities. This assessment involves investigating the emerging technology needs of local industries. Additionally, the faculty research national and regional trends through reviewing the literature and talking with other professional colleagues.

What is your evidence of the need?

There is a discrepancy between what the program can teach and what an entry level graduate will be required to know. Industrial training modules, mobile shop computers, a vertical mill and a parts cleaning oven are examples of new technology needs.

Given college resources, is it feasible? Yes. The College should strive to improve its level of quality in the instructional programs.

Is it an efficient use of college resources?

Yes. A current and relevant program will attract and retain more students. Students who complete a current and relevant program are much more employable.

What would be the campus location of this request/project? The automotive technology program is located on the main campus building 9.

How many students (per year) will benefit? The program serves approximately 117 students (head count) per year. (64.48 R-SFTE).

How will students benefit?

A current and relevant program will attract and retain more students. Students who complete a current and relevant program are much more employable.

4. Requested Resources

1) Mobile Wireless Shop Computers (12) = \$24,200

We currently have five mobile computers for student use in the auto tech lab. We plan to increase this to a total of twenty. We have three additional older computers we plan to recondition for this purpose. These computers will be in security type mobile cabinets that can be rolled to the service bay where the students are working. We plan to have our service information systems and other training data available on these computers. This is the type of system currently being implemented in modern automotive service facilities. This initiative provides for the purchase of the additional computers needed for this project.

2) Gasoline Caddie = \$600

The fuel pumps on most late model vehicles are located inside the fuel tank. Replacement of the fuel pump often requires removal of the fuel tank. When there is considerable volume of fuel in the tank, this becomes a rather hazardous operation. It is much safer to remove the fuel from the tank prior to removing the tank from the vehicle. This requires proper equipment for transferring and storing the fuel safely. A Gasoline Caddie is designed for this purpose. This initiative provides for the purchase of this equipment which will drastically reduce fire hazards in the auto tech lab when fuel pump service is performed and permit us to train students in the proper and safe methods of performing this operation.

3) Training Modules = \$45,000

We are desperately in need of training modules to enhance the learning environment for our automotive technology students. We are considering some computer based interactive units that should be very helpful to students in learning to understand the operation and diagnosis of various automotive systems. This initiative provide for the purchase of this equipment.

4) Ultra Rugged Laptop Computer for Lab = \$10,000

We have several pieces of test equipment in the lab that utilize a computer. Some of these units are designed to be used for diagnosis of vehicles under operating conditions. This requires that the equipment be hooked up while the vehicle is driven. To do this a laptop computer is required. A very rugged computer is needed to withstand the shop use environment. Several manufacturers make computers for this purpose. This initiative provides for the purchase of one of these units for the auto tech lab.

5) Starter Load Tester = \$15,000

This equipment provides a means to test starters under load while off the vehicle. This would enhance our electrical class by permitting us to demonstrate the effects of load on current draw and the effects of various starter defects on performance. It would permit us to have students service starters and follow up with testing for proper operation and performance. This initiative provides for the purchase of this equipment.

6) Bore Scope = \$5,000

This initiative provides for the purchase of a state-of-the-art bore scope and video monitor system for the automotive lab. This equipment is widely used in our industry to hasten the diagnosis of problems in large automotive components. It provides visual access to restricted areas of engines, transmissions, differentials and other components. Because our industry demands excellent diagnostic skills, we emphasize this area in all automotive classes. This equipment will permit students to become familiar with the same type of equipment they will encounter on the job. We have been unable to adequately teach these skills due to no equipment.

7) Bead Blast Machine = \$6,000

We are in need of a bead blast machine for cleaning and surface conditioning of many types of automotive parts. This equipment is commonly found in many automotive service facilities especially those performing major engine repair service. Students should be trained in the proper use of this equipment as part of the automotive technology program. This initiative provides for the purchase of a high quality bead blast machine for the automotive technology lab to enhance the learning environment for our students.

8) Hot Pressure Washer = \$ 6,000

We are in need of a hot pressure washer for cleaning and degreasing of vehicle components and equipment used in the automotive technology lab. We currently have a cold pressure washer which is useful for many cleaning jobs but it is does not work well for grease removal. Our instructional assistant would be able to perform many of his cleaning tasks much more efficiently with a hot washer. This initiative provides for the purchase of this equipment.

9) Computers for New Classrooms (40) = \$60,000

For the past two years we have been converting to more high tech electronic classrooms. When we move to new classrooms in the auto tech lab area we plan to implement a fully electronic classroom concept. This will require a computer for each student in our classrooms. This initiative provides for the purchase of these computers.

10) Pyrolytic Parts Cleaning Oven = \$10,000

This equipment is used to clean many types of automotive parts at high temperatures and provides an environmentally friendly method of cleaning these parts. This equipment is found in many modern automotive service facilities particularly those providing major engine repair service. This initiative provides for the purchase and installation of this equipment in the automotive technology lab.

11) Air Compressor =\$ 4,500

The automotive technology lab is supplied with compressed air from a central system which also supplies many other buildings on campus. This provides adequate air volume; however, the pressure is too low for some types of equipment and some situations. It is inadequate for the operation of tire changers and bead breakers for example. We need an air compressor that will provide adequate pressure for these applications. This initiative provides for the purchase and installation of this equipment in the automotive technology lab.

12) Vertical Mill =\$15,000

This equipment will permit the performance of machining operations on various automotive parts. It will also permit fabrication of automotive parts, tools, fixtures, and training aids. This equipment will permit us to teach students basic parts fabrication skills. This initiative provides for the purchase and installation of this equipment and the required tooling in the automotive technology lab.

5. Funding Sources

Student Technology Fees (TACT) Carl Perkins

5.1 Alignment to Carl Perkins Act goals?

Student Skills Goal

This initiative will improve technical skills of students by providing opportunity for those students to learn how to operate safe and reliable equipment of a type that they will be expected to operate by their future employers

Work-based Learning Goal

Students should be trained on equipment similar to what they will work with when employed. Employers are seeking employees with knowledge and training on the equipment they have.

Effect on Profession Technical Education student success?

Students will gain industry specified skills which lead to higher paying employment.

Brief Carl Perkins funding history

The automotive technology program has utilized Perkins funding over the last 20 years to enhance its capability to offer effective, efficient training through purchase of equipment. In that time, Perkins money has allowed the program to align its capabilities with the needs of the industry for which it trains students. The result is better qualified students, a better and broader relationship with industry and more efficient use of educational time.

5.2 Alignment to Student Technology Fees.

This initiative is seeking Student Technology Fees.

5.3 Curriculum Development

How will this initiative improve learning?

By incorporating new technologies and training materials into the curriculum.

What specific curricular materials will be produced? New course laboratory training materials, projects and tests.

Why is this curriculum development and not just curriculum maintenance?

These items are new to the curriculum. The faculty must become proficient with the equipment/software and prepare new learning materials.

6. Organization and Program Codes 611300 112000

7. Alignment to the College's goals
This initiative aligns with the following college goals:
Transforming Students' Lives

- Transforming the Learning Environment •

Initiatives Spreadsheet

ity		ite					Resource Type (mark with an "X")				Fund (mark	ling wit	Sour h an '	ces "X")		
Division Prior	Initiative ID	Expected completion da	Initiative Title	Resource Description	\$\$	Recurring / Nonrecurring	Payroll (w/OPE)	Equipment	Space	Other	Existing	New Gen Fund	Carl Perkins	Stud Tech Fee	Curr Dev	Other
1		0/1/2005	Move and Harada Classrooma	Remodel 2 Eviating Reams into Classrooms (2)	20,000				v							
2	AT05M01 AT05M01	9/1/2005	Move and Ugrade Classrooms	Elmo Visual Presenter	20,000	NR		х	^				x	х	<u> </u>	
3	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Annual Service Information System Subscriptions (2)	5,000	R		x						x		
4	AT05M02	9/1/2005	Replace/I Ingrade Existing Equipment	Color Laser Printer for Service Information	2 400	NR		x						x		
5	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Appual Software Updates for Scan Tools (4)	5,000	R		X						X		
6	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Engine Analyzers (3)	75,000	NR		X					x	~		
7	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Dynamometer	160,000	NR		X					X			
8	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Annual Replacement of Hand Tools	5 000	R		X					x			
9	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Air Tools (13)	3 500	NR		X					X			-
10	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Optical Headlight Aimer	2 000	NR		X					x			
11	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Training Video/CD Library	6,000	NR		~		х			X			
12	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Brake Parts Washers (5)	9,000	NR		х		~			X			
13	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Tire Changer	5,500	NR		X					X			
14	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Refrigerant Identifier	1,500	NR		Х					Х			
15	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Metal Lathe	20,000	NR		х					х			
16	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Professional Development	1,500 YR.	R				Х			х			
17	AT05M02	9/1/2005	Replace/Upgrade Existing Equipment	Annual Curriculum Revision	200 HR.	R	х						х			
18	AT05E01	9/1/2005	New Equipment	Mobile Computer Security Cabinets for Lab (15)	5,000	NR		Х						Х		
19	AT05E01	9/1/2005	New Equipment	Wireless Network Cards for Mobile Lab Computers (15)	1,200	NR		х						х		
20	AT05E01	9/1/2005	New Equipment	Gasoline Caddie	600	NR		Х					х			
21	AT05E01	9/1/2005	New Equipment	Mobile Computers for Lab (12)	18,000	NR		Х						Х		
22	AT05E01	9/1/2005	New Equipment	Training Modules	45,000	NR		Х					Х			
23	AT05E01	9/1/2005	New Equipment	Ultra Ruggedized Laptop Computer for Lab	10,000	NR		Х						Х		
24	AT05E01	9/1/2005	New Equipment	Starter Load Tester	15,000	NR		Х					Х			
25	AT05E01	9/1/2005	New Equipment	Bore Scope	5,000	NR		Х					Х			
26	AT05E01	9/1/2005	New Equipment	Bead Blast Machine	6,000	NR		Х					Х			
27	AT05E01	9/1/2005	New Equipment	Hot Pressure Washer	6,000	NR		Х					Х			
28	AT05E01	9/1/2005	New Equipment	Computers for New Classrooms (40)	60,000	NR		Х						Х		
29	AT05E01	9/1/2005	New Equipment	Faculty Instructor (1)	75,000	NR	Х					Х				
30	AT05E01	9/1/2005	New Equipment	Pyrolytic Parts Cleaning Oven	10,000	NR		х					х			
31	AT05E01	9/1/2005	New Equipment	Air Compressor	4,500	NR		Х					Х			
32	AT05E01	9/1/2005	New Equipment	Vertical Mill	15,000	NR		Х					Х		.	

Equipment Inventory Spreadsheet

Existing Equipment Inventory

				Total	Years of	Annual
Program	Description	#	Unit Cost	Cost	Life	Cost
AT	Tire changer	1	5,500	5,500	10	550
AT	Engine Analyzers	3	25,000	75,000	10	7,500
AT	Dynamometer	1	160,000	160,000	20	8,000
AT	Hand Tools	1	30,000	30,000	5	6,000
AT	Optical Headlight Aimer	1	2,000	2,000	10	200
AT	Training Video/CD Library	1	6,000	6,000	5	1,200
AT	Metal Lathe	1	20,000	20,000	20	1,000
AT	Roller Brake Tester	1	24,950	24,950	15	1,663
AT	Scan Tool	1	28,550	28,550	10	2,855
AT	Refrigerant Identifier	1	1,500	1,500	10	150
AT	Air Tools	13	269	3,500	5	700
AT	Elmo Visual presenter	1	3,500	3,500	5	700
AT	Annual Service Information System Subscriptions	1	5,000	5,000	1	5,000
AT	Color Laser Printer for Service Information System	1	2,400	2,400	10	240
AT	Annual Software Updates for Scan Tools	1	5,000	5,000	1	5,000
AT	Brake Parts Washers	5	1,800	9,000	10	900
	Existing Equipment Total			381,900		
	Annual Replacement Costs					41,658

Projected FY06 Program Outcomes

1. What program level outcomes do you expect to achieve?

The program has developed a set of learning outcomes and operational goals. Assessment of these program outcomes will be based on the measurement of the actual performance to the performance indicators. Please refer to the Program Learning Outcomes, Goals and Performance Indicators chart on page 9.

2. How will your program enhance your students' abilities to meet Core Abilities outcomes?

The program has developed an Learning Outcomes Assessment Matrix that maps all of the program and general education courses required to compete an associates degree against the program's learning outcomes, core abilities and learning college principles. The primary and secondary assessment methods are also identified. Please see this chart on page 11.

3. What course level outcomes do you expect to achieve?

What goals do you wish to set for 2004-2005?

Program goals remain as indicated for 2003-2004. That is that students would receive competent instruction in an effective and efficient learning environment that will lead to the acquisition of industrial entry-level skills. To accomplish this on-going goal the program will continue to prioritize equipment replacement needs and review its curriculum.

How will your courses grow, change or adapt?

The program will offer a new fabrication course winter '05 and again spring '05. Evaluation of results of these offerings will determine whether an expansion of this course concept (in the form or more advanced related courses) is warranted. Another new course intended to orient prospective automotive technology majors to the discipline will be made available summer '05.

How will your instructional methods change or adapt?

Both full-time instructors of the program up-graded their skills to include the use of AutoCad software. As a result an increasing amount of instructional communication will be accomplished through use of blueprints as per industrial standards.

What goals do you have for your instructional environment (classrooms and/or technologies and equipment)? The program will continue to prioritize is laboratory equipment replacement needs. Equipment initiatives have already be identified for 2005-2006.

As indicated in Part IV of this document an initiative has been identified involving replacement of computer lab equipment and integration of the program's computer lab. into the College's TACT system.

4. What plans do you have for enhancing your use of current technologies?

Almost by definition equipment that is new, even though replacing an existing function, typically brings new efficiencies not available in the older equipment and, therefore, is, in effect, an enhancement. (See above for planned equipment replacement.

5. What plans do you have for working more effectively with your Advisory Committee?

A goal of program staff is to recruit additional members to its advisory committee. We would like to have members from welding sales/supplies, as well as welding inspection. If we are successful in reaching this goal we will have a broader based, more effective committee, representing more automotive technology disciplines.

6. How will you set faculty and staff goals?

The faculty and staff in this program will use this unit plan to help set goals. The inclusion of learning outcomes and operating goals provide the basis for assessment. The faculty and staff must continuously maintain and improve the program.

7. Enrollment Projections

The student enrollment is constrained by the number of faculty. If more faculty are hired, then the student enrollment will increase.

8. Student Success Projections

The student success projections are part of the Program Learning Outcomes, Goals and Performance Indicators (page 9). Additional measures of student success will be developed during the year and added to the chart.

9. Facilities and Equipment Need Projection

This program operates in an outstanding facility. Equipment needs include the costs of acquiring new technologies, and, maintaining, repairing, upgrading and replacing existing equipment.

10. Budget Projections

The general fund budget is not expected to increase. Carl Perkins and Technology Fee dollars will be required to maintain and enhance the equipment.

Advisory Committee Chair

Division Chair

Date

Date