Advanced Technology Division
Automotive Technology Unit Plan

Lane
Community College

Revised 3/16/05

Advanced Technology Division
Automotive Technology Unit Plan

Advanced Technology Division
Automotive Technology Unit Plan

Alignment with the College

Automotive Technology 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.

The Automotive Technology program is centrally aligned with the College's strategic directions, core values, and learning centered principles.

Strategic Directions

Achieve Financial Stability: This program demonstrated a reduction in cost per student for FY03. This means more students were served with less funds while maintaining the excellent quality of the program.

Enhance the College Climate: This program actively recruited students from under-represented populations.

Core Values

Learning: Students demonstrate their learning by passing the NATEF's ASE certifications in eight areas of automotive technology. 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 have made a commitment to maximize the use of innovative instructional technologies to transform the curriculum. Some examples of this include transferring lecture notes to PowerPoint and assisting the division in developing a technical common core 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 Technology and Automotive Body and Collision.

Integrity: The program faculty have 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.

Advanced Technology Division
Automotive Technology Unit Plan

<u>Learning Centered Principles</u>

Substantive Change in Individual Learners: The Automotive Technology program excels in transforming student lives. This transformation is demonstrated when a new student enters the program without entry level skills and can complete the two-year program to obtain a high-wage career in the automotive industry.

Document Learning Success: As students progress through the program, they obtain the required training to pass one of the eight ASE technical certifications. The ability of the Automotive Technology students to obtain these certifications documents learning success.

Unit 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 company-owned 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.

History/Significant Program Events

This program has been offered at the college since 1976.

Advanced Technology Division
Automotive Technology Unit Plan

Degrees and Certificates

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 Science/Math/Computer Science requirement	3-4
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 Manufacturing Technology MFG 197	3-6
Total Credits	**15-18**

Advanced Technology Division
Automotive Technology Unit Plan

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 Manufacturing Technology MFG 197	3-6
Total Credits	**15-18**

Cooperative Education

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 Cooperative Education Coordinator and with instructor consent a maximum of 18 Co-op credits may be earned in lieu of required Automotive Technology course credits.

Advanced Technology Division
Automotive Technology Unit Plan

Organizational Structure

Board of Education
        President
                Vice President of Instruction
                      Associate Vice President of Instruction
                            Division Chair Advanced Technology
                                Faculty Automotive Technology Program

Faculty/Staff

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

Name	George Hart
Classification	Full-Time Faculty
Year Hired	2002
Degrees/Credentials	

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

Program Outcomes

Program outcomes
Primary outcome is student employability upon completion of the program in at least an entry-level capacity, with expectation of prompt advancement. Ideal outcome would be 100% employment upon completion of program. All students completing the program should be able to pass ASE certification exams in all eight categories. Presently students who choose to take ASE tests have about 90-95% pass success on first attempt. ASE tests are not mandatory and are not given as part of the automotive program, but are available twice a year on U of O campus at student expense. Some students taking courses do not seek a degree or certification. Primary outcome for these students is that they receive the skills they seek from the program.

Idealistic program outcomes: All students admitted to the program would be pursuing a career in the auto repair industry. All students would combine actual work experience in the repair industry with classroom and lab instruction. All students admitted to the program would meet basic mechanical knowledge criteria and be able to show basic aptitude skills. All students would be required to take and pass ASE certification tests in the categories they have completed.

Advanced Technology Division
Automotive Technology Unit Plan

Benchmarks

Efficiency Benchmarks	Description
Student/Instructor Efficiency Ratio = 100%	Student/Instructor Ratio = 18:1 Efficiency Ratio = Reimbursable Student FTE / Instructor FTE / 18
Classroom Capacity Efficiency Ratio =100%	Ratio = Students / Average Classroom Capacity Efficiency Ratio = Ratio / 80%
Cost per Student FTE Efficiency Ratio = 100%	The division has developed a normalized business model based on operating benchmarks. This model predicts an expected cost per Student FTE. FY03 Predicted Cost per SFTE = $4,826 FY03 Actual Cost per SFTE = $4,142 Efficiency Ratio = Predicted Cost / Actual Cost
Local Employment Demand / Student Completers Efficiency Ratio = 100%	Lane county new positions are projected by the Oregon Labor Management Information System (OLMIS). Student completers are defined as those students who have completed at least 90 credit hours and have passed at least two ASE certification tests. Efficiency Ratio = New Positions / Student Completers
Student Persistence Ratio = 80%	Persistence is the measure of the percent of students who finish a sequential course and continue to the next sequential course in the next term. Ratio = Continuing Students / Prior Term Completing Students
Student Retention Ratio = 80%	Student retention is the percentage of students who were enrolled in the second week of the term and were enrolled at the end of the term. Ratio = End of Term 2nd Week Students / 2nd Week Students
Starting Wage Ratio Efficiency Ratio = 100%	Student Completers' Average Starting Wage / OLMIS Average Starting Wage. For FY03 OLMIS average starting wage was $10.99.

Advanced Technology Division
Automotive Technology Unit Plan

Effectiveness Benchmarks	Description
Upon completion of the Automotive Technology program 90% of the students will pass the eight ASE examination areas.	1. Engine Repair 2. Transmissions 3. Drive Train 4. Suspension/Steering 5. Breaks 6. Electrical/Electronic Systems 7. Heating and Air Conditioning 8. Engine Performance
90% of the students who complete the two-year automotive program will have completed within nine terms.	
95% of the students who complete the automotive technology program will express satisfaction with the level of training provided.	Student completers will be asked to evaluate their overall satisfaction with the program training.
90% of employers will express job performance satisfaction with the program's student completers.	Employers of the will be asked to evaluate their overall satisfaction with the job performance of the prior year's program completers. On a five point Likert scale, satisfaction is greater than or equal to the midpoint.

Program accreditations/national standards

Presently the program is NATEF certified [pending re-certification]. This is the primary standard for automotive programs nationwide. NATEF is a branch of the organization that does ASE testing. Other certifications are available, most are manufacturer specific.

Idealistic accreditations: In addition to NATEF, one or two manufacturer programs should be pursued.

Courses

Course outcomes: Individual course outcomes are listed in course syllabi and are based on NATEF requirements.

Idealistic course outcomes: Each student would demonstrate skills required by NATEF task list for a panel made up of instructors and industry representatives, probably advisory committee members.

Instructional methods: Required textbooks, lecture, video presentations, lab worksheets and assignments, demonstrations, and vehicles and components provided by the school or the student are presently used.

Idealistic instructional methods: Student to instructor ratio of 10 to 1 or less would allow more complete understanding of material and better pacing to assure complete comprehension by all students. Use of mock-ups or training stations would improve student understanding. A standardized vehicle fleet would

Page 10

assure the accuracy of lab work and allow more problems to be built in to provide real world diagnostic experiences [vehicle bugging]. A standardized vehicle fleet would allow stocking of parts for these specific vehicles and the possibility of a program to train students for the auto parts industry. The modularization of program courses could allow for self paced study and reduce instructor lecture time.

Instructional environment

Classrooms presently used are too small for the number of students in classes and are in a different building from the auto laboratory. There are only two classrooms available. The only computer stations available to students are in the tool room and are set up for accessing service information.

Idealistic environment: Larger classrooms, better ventilation, more classrooms to allow use of classroom for one or two subjects only [would require at least four, as many as eight]. Reduced student to instructor ratio as noted above would allow smaller classrooms. Access to lab facilities from classrooms to permit demonstrations during lecture and observation of actual vehicle operation during lecture. Computer stations in classrooms to allow student access to service information and modularized instruction. Additional instructors to serve more students per term and allow for reduced student to instructor ratios, as well allowing increased specialization for instructors.

Advisory Committee

Program Operating Information – Trends

	Benchmark Assumptions	Values
1	Full-Time Faculty Ratio	80%
2	Part-Time Faculty Ratio	20%
3	Full-Time Faculty Salary	49,158
4	Part-Time Faculty Salary	30,780
5	Lab Assistant Dollars / FFTE	5,000
6	Classifed Support / FFTE	20%
7	Classified Salary	28,456
8	Full-Time Indirect Salary	45%
9	Part-Time Indirect Salary	21%
10	Operating Expenses/FFTE	4,000
11	Operating Expenses/Classified	2,000
12	Equipment / FFTE	3,500
13	Equipment / Classified	1,000
14	Division Classified / FFTE	4,935
15	Division Operating / FFTE	1,630

Automotive Technology Deviation from Benchmarks
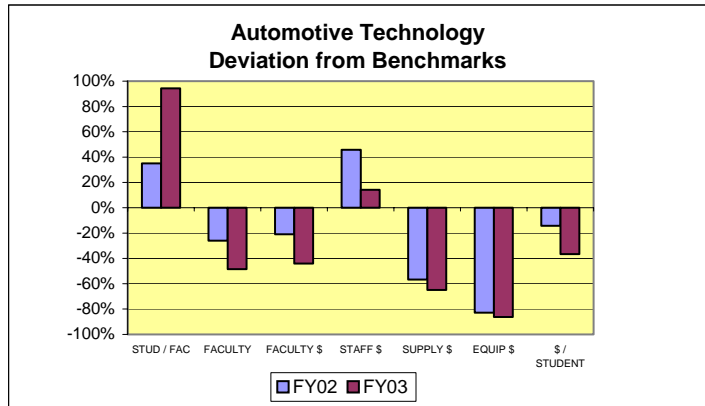
	Automotive Technology	FY 02			FY 03		
		Actual	Benchmark	Percent	Projected	Benchmark	Percent
1	Benchmark SFTE/FFTE		18			15	
2	Full-Time Faculty FTE	2.000	2.519	79%	2.000	3.108	64%
3	Part-Time Faculty FTE	0.330	0.630	52%	0.000	0.777	0%
4	Total Faculty FTE	2.330	3.148	74%	2.000	3.885	51%
5	Student FTE	56.670	56.670	100%	58.268	58.268	100%
6	SFTE / FFTE	24.322	18.000	135%	29.134	15.000	194%
7							
8	Full-Time Faculty	98,679	123,813	80%	98,679	152,765	65%
9	Part-Time Faculty	14,646	19,381	76%	0	23,913	0%
10	Lab Assistant	37,572	15,742	239%	37,572	19,423	193%
11	Division Classified	11,500	17,918	64%	9,871	22,108	45%
12	Other Personnel Expenses	60,546	71,154	85%	56,738	87,793	65%
13	Materials and Supplies	6,000	13,853	43%	6,000	17,092	35%
14	Equipment/Maintenance	1,988	11,649	17%	1,988	14,373	14%
15	Division Operating	3,798			3,260		
16	Total	234,729	273,509	86%	214,108	337,466	63%
17	Cost per Student FTE	4,142	4,826	86%	3,675	5,792	63%

Advanced Technology Division
Automotive Technology Unit Plan

	FY04 Preliminary Budget	FY03	FY04 (+4%)
1	Full-Time Faculty	98,679	102,626
2	Part-Time Faculty	14,646	15,232
3	Lab Assistant	37,572	39,075
4	Subtotal	150,897	156,933
5	OPE	67,904	70,620
6	Total Instruction	218,801	227,553
7			-
8	Division Classified	11,500	11,959
9	Other Personnel Expenses	2,415	2,511
10	Subtotal	13,914	14,471
11	Materials and Supplies	6,000	6,240
12	Equipment/Maintenance	1,988	2,068
13	Division Operating	3,798	3,950
14	Total Administration	25,701	26,729
15	Total Program	244,501	254,281
16	46% Indirect	100,648	104,674
17	Total with Indirect	345,150	358,955
18	Cost per SFTE	6,091	6,334

Advanced Technology Division
Automotive Technology Unit Plan

Automotive Technology FY04 General Fund Budget

611300   **Automotive Technology**   **111100**   **General Fund**   **FY04**

520300	Classified Unit	13,724.00	851.00	14,575.00	5,121.61	0.00	9,453.39
530400	Classified Non-Unit	0.00	0.00	0.00	1,593.60	0.00	-1,593.60
540500	Faculty Unit Employees	101,727.00	0.00	101,727.00	40,690.80	0.00	61,036.20
591900	OPE Allocated	57,610.05	397.00	58,007.05	23,375.16	0.00	34,631.89
	Personnel Services	**173,061.05**	**1,248.00**	**174,309.05**	**70,781.17**	**0.00**	**103,527.88**
610000	Operational Supplies	6,000.00	1,000.00	7,000.00	0.00	0.00	7,000.00
611500	Operating Supplies	0.00	0.00	0.00	1,140.79	0.00	-1,140.79
614200	Routine Staff Travel	0.00	0.00	0.00	150.60	0.00	-150.60
615700	Maintenance & Repair	0.00	1,000.00	1,000.00	0.00	0.00	1,000.00
616000	Maintenance & Repair-	0.00	0.00	0.00	363.79	50.00	-413.79
616900	Institutional Fees & Dues	0.00	0.00	0.00	17.00	0.00	-17.00
617600	Outside Services-1099	0.00	0.00	0.00	350.46	0.00	-350.46
	Materials and Services	**6,000.00**	**2,000.00**	**8,000.00**	**2,022.64**	**50.00**	**5,927.36**

111100		Budget	Adjust	Adj Bud	Activity	Encumber	Balance
General Fund		**179,061.05**	**3,248.00**	**182,309.05**	**72,803.81**	**50.00**	**109,455.24**

440010	Mandatory Student Fees	-7,500.00	0.00	-7,500.00	0.00	0.00	-7,500.00
442000	Mandatory Fees-Gen	0.00	0.00	0.00	-4,810.00	0.00	4,810.00
	Tuition and Fees	**-7,500.00**	**0.00**	**-7,500.00**	**-4,810.00**	**0.00**	**-2,690.00**
480100	Sale of Goods and	-750.00	0.00	-750.00	0.00	0.00	-750.00
480180	Sales - General Mdse-	0.00	0.00	0.00	-2.58	0.00	2.58
480280	Sales - Other	0.00	0.00	0.00	-292.20	0.00	292.20
	Other Sources	**-750.00**	**0.00**	**-750.00**	**-294.78**	**0.00**	**-455.22**
610000	Operational Supplies	8,250.00	0.00	8,250.00	0.00	0.00	8,250.00
611500	Operating Supplies	0.00	0.00	0.00	5,533.20	0.00	-5,533.20
622300	Provision for Bad Debt	0.00	0.00	0.00	121.51	0.00	-121.51
	Materials and Services	**8,250.00**	**0.00**	**8,250.00**	**5,654.71**	**0.00**	**2,595.29**

111200		Budget	Adjust	Adj Bud	Activity	Encumber	Balance
Income Credit Program		**0.00**	**0.00**	**0.00**	**549.93**	**0.00**	**-549.93**

Automotive Technology	**Total**	Budget	Adjust	Adj Bud	Activity	Encumber
611300	**179,061.05**	**3,248.00**	**182,309.05**	**73,353.74**	**50.00**	**108,905.31**

Advanced Technology Division
Automotive Technology Unit Plan

Performance Analysis

Operating Improvement

Enrollment management; Since we traditionally have a waiting list, we should institute requirements for entry to the program similar to those used by some of the health services programs. Requiring a basic skills proficiency would allow us to eliminate potential students with little chance of success and alter existing classes to save time now spent on basic skills. This could be accomplished by offering a class in the basic skills as is being developed by Paul Croker. Another option would be to offer additional sections of present classes to serve more students in a given term. This option would require at least one additional full time instructor. Another option would require restructuring of present classes into smaller segments or modules, to be offered throughout the term. This also would require additional instructor time to serve additional students.

Resource management; Only two classrooms are available to our program presently, both of which are poorly ventilated and too small for the number of students enrolled. They also are located in a different building from the auto shop. We need a minimum of two classrooms, perhaps as many as eight, of sufficient size and located in the same building as the auto laboratory. We need a budget and a plan for maintenance, replacement and new construction of equipment and tools. Our vehicle inventory consists of donated vehicles, so we have a variety of makes and model years. If we could purchase vehicles, we could narrow the field. This would allow us to fine tune our lab assignments and keep in stock a parts assortment for our fleet. Example; the fleet would consist of fewer vehicles, with representation of Asian, European, and American manufactured vehicles of newer model years. This would require a budget, curriculum changes, and space and time to set up a parts department.

Efficiency Benchmarks	FY 03 Assessment
Student/Instructor Ratio Efficiency Ratio = 100% Actual SFTE/FFTE./18	Student FTE = 58.268 Faculty FTE = 2.000 SFTE/FFTE = 29.134 Efficiency Ratio = 29.134/18 = 162%
Classroom Capacity Efficiency Ratio =100% Ratio = Students / Average Classroom Capacity Efficiency Ratio = Ratio / 80%	
Cost per Student FTE Efficiency Ratio = 100% The division has developed a normalized business model based on operating benchmarks. This model predicts an expected cost per Student FTE. Efficiency Ratio = Predicted Cost / Actual Cost	FY03 Predicted Cost per SFTE = $4,826 FY03 Actual Cost per SFTE = $4,142 Efficiency Ratio = 117%
Local Employment Demand / Student Completers Efficiency Ratio = 100% Lane county new positions are projected by the Oregon Labor Management Information System (OLMIS). Student completers are defined as those	OLMIS new positions = 34 Program completers =

students who have completed at least 90 credit hours and have passed at least two ASE certification tests. Efficiency Ratio = New Positions / Student Completers	
Student Persistence Ratio = 80% Persistence is the measure of the percent of students who finish a sequential course and continue to the next sequential course in the next term. Ratio = Continuing Students / Prior Term Completing Students	
Student Retention Ratio = 80% Student retention is the percentage of students who were enrolled in the second week of the term and were enrolled at the end of the term. Ratio = End of Term 2nd Week Students / 2nd Week Students	
Starting Wage Ratio Efficiency Ratio = 100% Student Completers' Average Starting Wage / OLMIS Average Starting Wage.	FY03 OLMIS average starting wage was $10.99.

Effectiveness Benchmarks	Description
Upon completion of the Automotive Technology program 90% of the students will pass the eight ASE examination areas.	1. Engine Repair 2. Transmissions 3. Drive Train 4. Suspension/Steering 5. Breaks 6. Electrical/Electronic Systems 7. Heating and Air Conditioning 8. Engine Performance
90% of the students who complete the two-year automotive program will have completed within nine terms.	
95% of the students who complete the automotive technology program will express satisfaction with the level of training provided.	Student completers will be asked to evaluate their overall satisfaction with the program training.
90% of employers will express job performance satisfaction with the program's student completers.	Employers of the will be asked to evaluate their overall satisfaction with the job performance of the prior year's program completers. On a five point Likert scale, satisfaction is greater than or equal to the midpoint.

Advanced Technology Division
Automotive Technology Unit Plan

Unit Initiatives

Unit initiatives are separated into two categories: Maintenance Initiatives and Enhancement Initiatives.

Maintenance initiatives are requests for resources to maintain the existing levels of program efficiency and effectiveness. Maintenance initiatives respond to:
1) any mandatory changes in the program (recurring contracts, change in credits, implementing accreditation or other curriculum standards), and,
2) costs to maintain the existing curriculum and program equipment.

Enhancement initiatives are requests for new resources to implement substantive changes in the program, usually in response to student growth or new curriculua.

Maintenance Initiatives

Initiative ID	Need	Request
M01	update mitchell software	3,200
M02	Software operating system upgrades for lab (6)	2500
M03	Air Tools (13)	3,500
M04	Snap on Modis Scan Tool	11,210
M05	OTC Genesis Scan tool	6,750
M06	On-vehicle Brake lathes (2)	7,900
M07	Annualized replacement hand tools	5,000
M08	annual curriculum revision	200 hrs
M09	Refrigerant Identifier	1500
M10	Tire changer	5500
M11	AC Recovery/Recharge Machine	3620

Advanced Technology Division
Automotive Technology Unit Plan

Enhancement Initiatives

Initiative ID	Need	Request
E01	Tech 11 Scan Tool	4,000
E02	Master Tech Scan tool	6,530
E03	Oscilloscope - Techtronics THS730A (2) Oscilloscope - Flukes (2)	15,000
E04	Elmo overhead projectors (2)	7,000
E05	DVD/VCR player	300
E06	Dynamometer	160,000
E07	Faculty1	75000
E08	Professional development	1500 yr
E09	Remodel Library & clean rooms into classrooms	10000
E10	Locking storage cabinet	1500
E11	Computer security cabinet	800
E12	Computers for remodeled classrooms (20)	30000
E13	Training video/cd library	6000
E14	Bore Scope	5000
E15	Optical Headlight aiming machine	2000
E16	Laptop computer for lab	10000
E17	Bead Blast machine	6000
E18	Starter Load Tester	15000
E19	Cut off saw	1500
E20	Hot pressure washer	6000
E21	Air compressor	4500
E22	Engine analyzer (3)	75000
E23	Metal lathe	20000
E24	Vertical Mill	15000
E025	Roller Brake Tester	30200
E26	EVAP System Tester	2400
E27	Engine analyzer (3)	75000
E27	Metal lathe	20000
E29	Vertical Mill	15000

Advanced Technology Division
Automotive Technology Unit Plan

Division/Unit	Initiative ID	Division Priority	Date of Initiative	Expected completion date	Initiative Description	Resource Description	$$	Recurring / Nonrecurring	Resource Type (mark with an "X")				Funding Sources (mark with an "X")					
									Payroll (w/OPE)	Equipment	Space	Other	Existing	New G-F	CP	TACT	CD	Other
Automotive	E01	1	1/9/04	6/30/05	New Equipment	Locking storage cabinet	1500	NR		x					1			
Automotive	E02	2	1/9/04	6/30/05	New Equipment	Dynamometer	160,000	NR		x				2	1			1
Automotive	E03	3	1/9/04	6/30/05	New Equipment	Oscilloscope - Techtronics THS730A (2) Oscilloscope - Flukes (2)	15,000	NR		x			1		2			
Automotive	E04	4	1/9/04	6/30/05	New Equipment	Bore Scope	5000	NR		x					3			
Automotive	E05	5	1/9/04	6/30/05	New Equipment	Optical Headlight aiming machine	2000	NR		x					4			
Automotive	E06	6	1/9/04	6/30/05	New Equipment	Laptop computer for lab	10000	NR		x				3	5	1		
Automotive	E07	7	1/9/04	6/30/05	New Equipment	Bead Blast machine	6000	NR		x				4	6			
Automotive	E08	8	1/9/04	6/30/05	New Equipment	Starter Load Tester	15000	NR		x				5	7			
Automotive	E09	9	1/9/04	6/30/05	New Equipment	Cut off saw	1500	NR		x				6	8			
Automotive	E10	10	1/9/04	6/30/05	New Equipment	Hot pressure washer	6000	NR		x				7	9			
Automotive	E11	11	1/9/04	6/30/05	New Equipment	Air compressor	4500	NR		x				8	10			
Automotive	M01	12	1/9/04	6/30/05	Replacement Equipment	Refrigerant Identifier	1500	NR		x				9	11			
Automotive	M02	13	1/9/04	6/30/05	Replacement Equipment	Tire changer	5500	NR		x				10	12			
Automotive	E12	14	1/9/04	6/30/05	New Equipment	Engine analyzer (3)	75000	NR		x				11	13			
Automotive	E13	15	1/9/04	6/30/05	New Equipment	Metal lathe	20000	NR		x				12	14			
Automotive	E14	16	1/9/04	6/30/05	New Equipment	Vertical Mill	15000	NR		x				13	15			
Automotive	M03	17	1/9/04	6/30/05	Replacement Equipment	Annualized replacement hand tools	5,000	R		x			2					
Automotive	E15	18	1/9/04	6/30/05	New Equipment	Elmo overhead projectors (2)	7,000	NR		x						2		
Automotive	E16	19	1/9/04	6/30/05	New Equipment	DVD/VCR player	300	NR		x				14	16			
Automotive	M04	20	1/9/04	6/30/05	Replacement Equipment	Software operating system upgrades for lab (60	2500	R		x			3		17	3		
Automotive	E17	21	1/9/04	6/30/05	New Equipment	Faculty1	75000	R	x									
Automotive	E18	22	1/9/04	6/30/05	New Equipment	Computers for remodeled classrooms (20)	30000	NR		x						4		
Automotive	E19	23	1/9/04	6/30/05	New Equipment	Master Tech Scan tool	6,530	NR		x			4		18			
Automotive	E20	24	1/9/04	6/30/05	New Equipment	Tech 11 Scan Tool	4,000	NR		x			5		19			
Automotive	E21	25	1/9/04	6/30/05	New Equipment	Remodel Library & clean rooms into classrooms	10000	NR			x		6	15				2
Automotive	M05	26	1/9/04	6/30/05	Replacement Equipment	update mitchell software	3,200	R		x			7			5		
Automotive	M06	27	1/9/04	6/30/05	Replacement Equipment	Air Tools (13)	3,500	NR		x			8		20	6		
Automotive	M07	28	1/9/04	6/30/05	Replacement Equipment	Snap on Modis Scan Tool	11,210			x						7		
Automotive	M08	29	1/9/04	6/30/05	Replacement Equipment	OTC Genesis Scan tool	6,750	NR		x					21			
Automotive	M09	30	1/9/04	6/30/05	Replacement Equipment	On-vehicle Brake lathes (2)	7,900	NR		x					22			
Automotive	M02	31	1/9/04	6/30/05	Replacement Equipment	annual curriculum revision	7,600	R									1	
Automotive	E22	32	1/9/04	6/30/05	New Equipment	Professional development	1500	R				x						3
Automotive	E23	33	1/9/04	6/30/05	New Equipment	Computer security cabinet	800	NR		x				16				
Automotive	E24	34	1/9/04	6/30/05	New Equipment	Training video/cd library	6000	NR				x			23			4
		14			New Equipment	Engine analyzer (3)	75000	NR		x			x	x				
		15			New Equipment	Metal lathe	20000	NR		x			x	x				
		16			New Equipment	Vertical Mill	15000	NR		x			x	x				