Automotive + Heavy Equipment Management
APEC 2000-2001

SECTION 1

PROGRAM OVERVIEW

INTRODUCTION

The Automotive and Heavy Equipment Management program (AHM) is a third and fourth year B. S. degree program for students with an automotive or heavy equipment related associate degree or the equivalent. Graduates of factory co-op programs such as GM's ASEP, Ford's ASSET, Chrysler's CAP, or Toyota's T-Ten programs are also eligible to enroll in this program.

The program concentrates on managerial skills required by the automotive and heavy equipment industries. Instruction is provided in the areas of management, sales, marketing, distribution, customer relations, warranty administration, franchising, dealership operations and management, accounting, financing, and related computer skills. Students also have the opportunity to develop and improve their communication skills through oral presentations and written projects that are required in many courses. A computer lab using current PC software supports all areas of the AHM program.

The role and mission of the AHM program is to provide industry with entry-level managers that have the appropriate balance of technical, managerial, and communication skills; employees with a strong vision, positive attitude and the desire to make a contribution.

The AHM program started in 1971, graduating its first class in 1973. The program has graduated more than 1600 graduates over the past 27 years and is the oldest B. S. degree program in the College of Technology. The program started out as Automotive and Heavy Equipment Technology (AHT). In 1987, as industry trends changed, and the program became more management oriented, the name was changed to Automotive and Heavy Equipment Management (AHM), to more closely reflect the curriculum.

Because of the program's longevity, the number of graduates in the workplace, and the uniqueness of curriculum (specific automotive management classes), the AHM program is largely responsible for the strong automotive reputation Ferris has developed throughout the global automotive industry.

Graduates from the AHM program are among the higher paid and more sought-after graduates of Ferris State University. Most of the major corporate employers look to Ferris' AHM program as well as four or five others schools across the country for their staffing needs. Because every global automotive manufacturer doing business in America requires managers with the precise skills offered by this program, many graduates are faced with the difficult decision of choosing from several highly desirable and lucrative job offers.

There are no certification agencies that readily meet the unique needs of the AHM program. The technical portion of the student's education (their associate degree area) has numerous certification and licensing processes available, which

many students are a part of. Consequently, the AHM program relies very heavily on the advice and recommendations of its advisory board, made up primarily of employers that have hired graduates in recent years.

There are three full-time faculty members in the AHM program, Michael Ropele, Associate Professor and Program Coordinator (5/94-5/2000), Gregory Denny, Professor, and Daniel Vander Woude, Assistant Professor.

Two adjunct faculty members (John Gahrs and Thomas Brownell) have also taught classes over the last five years to assist with the teaching load, as needed.

Faculty members have concluded that on-going recruiting, the promoting of course offerings in the Detroit area (through Macomb Community College's University Center), and obtaining needed funding to keep up with changes in technology are areas that must be focused on for future improvement.

Overall, the AHM program is a very cost effective, productive, and unique program that is well known throughout industry and which creates a very positive image for the College of Technology and Ferris State University.

See the following pages for copies of the Program Evaluation Plan, the approved program evaluation budget memorandum, and a copy of the College of Technology's mission statement.

AUTOMOTIVE AND HEAVY EQUIPMENT MANAGEMENT

Degree: B. S. Automotive and Heavy Equipment Management

Program Review Panel:

AHM faculty and Chair:	Greg Denny
Program Coord and Asst Chair:	Mike Ropele
AHM faculty:	Dan Vander Woude
Special interest faculty (Emeriti):	John Gahrs
Outside faculty member:	Tom Brownell
Acting Department Head:	Phil Marcotte

Purpose: To identify strengths and weaknesses in the Automotive and Heavy Equipment Management program (AHM). Results to be used to improve the program and to allocate resources, as necessary, to better serve students, alumni and employers affected by the AHM program.

Data Collection Techniques:

1. Graduate surveys sent to alumni, to achieve a return rate of at least 100.
2. Employer surveys sent to active employers, who can be identified, and have hired at least one graduate the past five years.
3. Student surveys collected from current seniors in the AHM program.
4. Faculty surveys sent to all faculty teaching in feeder programs.
5. Advisory Committee perceptions collected at the next AHM Advisory meeting (March 28, 2000).
6. Labor market analysis researched via current market indicators.
7. Evaluate facilities and equipment through analysis by AHM faculty.
8. Evaluate curriculum through analysis by AHM faculty and Advisory Committee input.

Anticipated Schedule of Events:

Activity	Leader(s)	Target Date
Graduate Survey	Denny; Marcotte	April 25, 2000
Employer Survey	Vander Woude; Gahrs	March 30, 2000
Student Survey	Ropele; Vander Woude	March 1, 2000
Faculty Survey	Ropele ; Marcotte	April 25, 2000
Advisory Committee	Ropele; Gahrs	March 30, 2000
Labor Market Analysis	Vander Woude; Brownell	May 20, 2000
Facilities Evaluation	Vander Woude	May 20, 2000
Curriculum Evaluation	Denny; Ropele	May 20, 2000

MEMORANDUM

TO: Vincent King, Chair, Academic Program Review Committee

FROM: Greg Denny, Professor and Acting Chair, Program Review Panel
Automotive and Heavy Equipment Management (AHM)

SUBJ: Proposed budget for Automotive and Heavy Equipment Management program review panel

DATE: December 8, 1999

Outlined below is the budget estimate for the Automotive and Heavy Equipment Management program review panel. Please contact me if there are any questions at extension 2361 or email at dennyg@ferris.edu.

Surveys (graduate, employer and current students)

Copying costs	$ 85.00
Survey mailing costs	245.00
Return envelope printing costs	35.00
Return mailing costs	175.00
Secretarial / Adult part-time / student Support and Data entry	245.00
Phone expenses	80.00
Final document copying costs	100.00
TOTAL	**$ 965.00**

Approval for $700

Douglas Donelson
11/19/00

THE MISSION OF THE COLLEGE OF TECHNOLOGY

Statement of Mission

The mission of the College of Technology is to educate students in a spectrum of technical programs critical to Michigan's economic future and to provide technology transfer to business and industry through the Technology Transfer Center (TTC). This curricula spectrum of engineering, engineering technology, technology management, and technical specialty programming integrates the appropriate general education courses needed to prepare today's graduates with a foundation of knowledge required to cope with advancing technology within their professional careers.

Our Students

The College of Technology is committed to providing its diverse student body with strong technical curricula emphasizing practical, usable skills that prepare the graduate to analyze, synthesize and problem-solve within their field of study. This is accomplished in an environment which is one of respect for our students and their field of study. The College of Technology perceives its students as being customers who have enrolled in programs to become employable and prepared for advancement in their chosen careers after graduation. The College of Technology takes this trust seriously, and provides curriculum laddering options for two-year A.A.S. degree program graduates to transfer into four-year B.S. degree programs.

Our Programs

The College of Technology is committed to keeping its educational programs and public service component responsive to the automotive and heavy equipment industry, the construction industry, the electrical and electronics industry, the printing industry, and the manufacturing industry. Accomplishment is achieved by fostering mutually beneficial relationships with all those industries who employ our graduates and seek our technical assistance. Those industries in turn support these programs with financial donations, as well as up-to-date technology, technical assistance, and advice.

Our Employees

The College of Technology is committed to high standards of performance, recognition for, and pride in professional accomplishment, with the understanding that the strength of the College is the faculty, staff, and administration. The College embraces the concepts of equal opportunity, affirmative action, and cultural diversity. Professional growth, acceptance of responsibility, and teamwork are encouraged.

Our Communities

The College of Technology is committed to a leadership role within the Ferris academic community and being good neighbors with full participation in off-campus community life and community service. Access to educational experiences, business opportunities, cultural events, leisure pursuits, and a variety of other activities is shared within our communities. The College of Technology is dedicated to providing community service through its Applied Technology Center (ATC) and its Technology Transfer Center (TTC), as well as through a number of outreach programs serving Michigan.

Our State

Ferris State University's polytechnic mission identifies the College of Technology as an integral part of the University's contribution to the economic vitality of Michigan. This is accomplished by providing an educated workforce critical to Michigan's economic future, plus applied research and technology transfer, including the application and management of technology, and its relationship to industrial development.

The College of Technology is recognized for its capable graduates and the important role they have in the economy of Michigan. It should be noted that the College of Technology provides the State of Michigan with a critical mass of quality graduates, and is the largest College of Technology in the United States.

STRATEGIC ISSUES (10-YEAR)

1. Acquiring and distributing resources necessary to maintain quality programming with the College of Technology.
2. Managing resources to maximize the service and programming within the College of Technology.
3. Expanding further the liaison with Michigan business and industry.
4. Continuing professional development of faculty, staff, and administration.
5. Integrating the application of technology into the College curricula.
6. Increasing the number of graduates and national placement.
7. Analyzing population demographics and the impact upon the College curricula and enrollment patterns.
8. Developing new degree programs and modifying existing curricula utilizing both 2 + 2 and 0 + 4 degree programming.
9. Maximizing the potential of the Applied Technology Center (ATC) and the Technology Transfer Center (TTC).

SECTION 2

GRADUATE FOLLOW-UP SURVEY

INTRODUCTION

One source of feedback for improving program quality is the alumni of that program. Recent graduates are performing those jobs they should've been trained to do. This concept seems obvious, but to confirm this correlation one must ask those graduates "How did we do?"

RATIONALE FOR SURVEY

There were a number of concerns the Program Review Panel (PRP) wanted answered by this survey:

- Current salaries versus years since graduation
- Who helped in job placement?
- Was PC training adequate?
- Graduate satisfaction levels:
    - Academically
    - Advising
    - Problem solving skills
    - Written communications
    - Oral communications
    - Business management
    - Technical education
    - Internship
- What coursework would have benefited you the most that you did **NOT** take at Ferris State University?
- Was the balance between communication skills and technical skills correct, in terms of your current job title? This is a major concern in our department. Do Ferris graduates need more technical classes or more communication / management / teamwork / problem solving classes to be successful? A large portion of the survey revolved around this question. Two fields were compared, current job title and the listing of skills the respondent ranked as most desirable.

A copy of the two page alumni survey follows this page.

Alumni Survey
Ferris State University

Automotive and Heavy Equipment Management Program

To keep our program current with the marketplace we need your feedback on the preparedness you received at Ferris State University. Please take a few minutes to fill out this survey and return it to us by mail using the enclosed postpaid envelope. Thank you for your time, thoughts and cooperation.

Year of graduation _____

Current job title _____

Starting salary (after graduation) _____

How long with current employer _____

What is your current salary? (please check one)

<$30,000	
$30,000-$40,000	
$40,000-$50,000	
$50,000-$60,000	
$60,000-$70,000	
>$70,000	

When did you accept your first position out of college? (please check one)

End of junior internship	
During senior year	
At graduation	
After graduation	

Who helped you the most with job placement? (please check all that apply)

AHM program faculty	
Ferris Career Services (Placement Office)	
Classified ads	
Personal connections	
Other: _____	

What types of training have you received since leaving Ferris State University? (please check all that apply)

Seminars:	
Management	
Personal development	
Software related	
Technical	
Other: _____	
Graduate study	

Please circle one:

Did you intern as a last semester senior? Yes No

Did you intern with your current employer? Yes No

Did you get hired by your internship employer? Yes No

Identify computer software you currently use, your training preparedness, and the software tradename:

	Use on regular basis (yes / no)	FSU training was adequate (yes / no)	Name of software
Operating system			
Word processor			
Spread sheet			
Data base			
Presentation software			
Internet, e-mail, etc.			

Please check the box that best applies to the following statements:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
My AHM degree helped me or is helping me achieve my career goals.					
I am satisfied with my academic preparation at FSU.					
I am satisfied with the AHM advising I received at FSU.					
The AHM courses I took at FSU helped me develop problem solving skills necessary for on-the-job success.					
The AHM courses I took at FSU helped me develop strong written communication skills.					
The AHM courses I took at FSU helped me develop strong oral communication skills.					
The AHM courses I took at FSU helped me develop strong business management skills.					
My AHM education at FSU was a positive factor in my employer's decision to hire me.					
My technical education benefits me in my current position.					
The AHM internship benefited me, in terms of career path selection.					
I would recommend FSU's AHM program to prospective students.					

If asked to prioritize the skills listed above, which one would rank as the most desirable for your employer's needs?

_____

_____

What courses would have helped to prepare you for your current position, which you **DID NOT** take at FSU:

_____

Recommendations to improve FSU's AHM program: _____

_____

_____

_____

Are you aware that the AHM program is currently being taught in Southeast Michigan? Yes No

Do you know anyone that may be interested in the AHM program?

NAME _____

ADDRESS _____

CITY STATE & ZIP _____

PHONE # _____

E-MAIL _____

METHODOLOGY / DIFFICULTIES / RETURN RATES

The alumni office was contacted early in the process to gather alumni names and addresses. A glaring omission was found at this time; the Alumni database and Registrar's database are not outwardly compatible (Jeremy Mishler, Acting Alumni Director; Feb, 2000). The end result was the alumni database did not contain the most recent graduates, namely those from the 1999 and 2000 classes. Program faculty individually gathered names and addresses of recent graduates that were readily available through the department office.

The alumni database was sorted by date of graduation, to assure a proper number of alumni. The curriculum has changed drastically since 1990, so that date was used. This produced 300 records (out of 1200 total available). We now had 306 records of "current" graduates.

The next problem encountered was communication between software programs in the Alumni Office, the Copy Center, and the mailroom. After a lot of phone conversations, e-mails and face-to-face conversations the files were properly converted and downloaded. The mailings went out in mid April.

Of the 306 surveys sent out, only 13 were returned as undeliverable. The number of surveys actually delivered to addresses was 293. Survey statisticians typically aim for a 30 % return rate for alumni type surveys (Penny Papo, Manager Assessment Services and Enrollment Research, Aug, 2000). We were, to say the least, mildly surprised when the returns reached 112 (38 %). A thirty eight percent return on any survey should be considered excellent. People normally express their viewpoint in one of two ways. Typically it is the people at either end of the spectrum that speak out, those with a real complaint or those who are satisfied with whatever is being surveyed. It is obvious our graduates are satisfied, based on the number of responses first of all, and the majority of those responses being positive.

DATA ANALYSIS

The data was sorted, loaded into Excel, then analyzed. In some cases it was appropriate to sort into 'classes' of information, based on how much work experience the graduate had (graduation dates) or based on their current job

titles. This type of analysis can show trends in the data in two major areas, communication skills and PC skills.

A. Salary Summary

The first area of concern deals with current salaries versus graduation date. The data reflects that the longer the graduate has been working, the higher the salary. This was expected, as that is the trend in almost everybody's working life. We just documented what is common knowledge. Please see the chart, below, labeled "SALARY SUMMARY."

It is also apparent that the majority of graduates used the AHM program faculty to find their first job. Keep in mind there were multiple responses available. The highest percentage from any other category was 31 %, from Career Services in the 94-96 time frame. This again was expected, as the AHM program faculty consider job placement to be a very high priority item. They spend a great deal of time and effort in this area, and the alumni survey documented this fact.

SALARY SUMMARY

Year of graduation	Job title	# of grads responding	Avg. starting salary	Avg. current salary	Most helpful in job placement
88-90	Management	12	$27,500	$60K-$70K	AHM faculty (77 %)
	Technical	2	$26,700	$50K-$60K	
91-93	Management	29	$27,000	$50K-$60K	AHM faculty (44 %)
	Technical	14	$26,500	$50K-$60K	
94-96	Management	12	$29,800	$50K-$60K	AHM faculty (39 %)
	Technical	16	$34,300	$50K-$60K	
97-99	Management	18	$35,600	$40K-$50K	AHM faculty (53 %)
	Technical	10	$36,500	$40K-$50K	

B. Computer Usage

Computer usage data was relatively easy to evaluate, based on when certain computer programs were developed and knowing when the AHM program instituted different software programs into the curriculum. Please see the "COMPUTER USAGE" chart following this discussion.

It is very evident that the majority of AHM graduates currently use all types of PC software. Every graduating group shows a majority answering 'YES' to the question "Do you use this software on a regular basis?" The only two software application programs not heavily used, yet, are the presentation software and databases. Using these programs on a regular basis is still the majority answer, but it is not so heavily weighted in favor of using these programs. Based on discussions with current employers, and our advisory board, these two programs, presentation software and database software are on the rise, though. The AHM program requires students to use presentation software (since 1998), and we are looking into incorporating databases into the curriculum, at some point in the near future.

The 88-90 time frame shows a high percentage of responses indicating the AHM program was not teaching what the typical graduate currently uses in industry. The software was, for all practical purposes, non-existent prior to 1991. Simple DOS operating systems, word processing programs and spreadsheets were introduced in the AHM curriculum starting in 1991. The responses in the 91-93 and 94-96 time frames show significant improvement in student preparedness, in these three areas.

In 1997 presentation software and Internet, e-mail, etc. was introduced into the curriculum. Graduate responses in that time frame, 97-99 shows a marked improvement. The numbers are not as high as they should be, but are improving. This area can become quite expensive to stay current, not only in software, but also in hardware to run that software.

COMPUTER USAGE

88-90	Use on a regular basis		FSU training adequate	
	yes	no	yes	no
Operating systems	7	3	2	10
Word processor	11	0	5	7
Spread sheet	10	1	3	9
Data base	5	3	1	8
Presentation software	8	3	1	11
Internet,e-mail, etc.	10	0	1	11

91-93	Use on a regular basis		FSU training adequate	
	yes	no	yes	no
Operating systems	27	5	13	13
Word processor	34	4	23	13
Spread sheet	29	7	16	17
Data base	23	10	8	20
Presentation software	23	10	6	25
Internet,e-mail, etc.	35	4	7	24

94-96	Use on a regular basis		FSU training adequate	
	yes	no	yes	no
Operating systems	17	5	6	10
Word processor	20	5	20	3
Spread sheet	19	5	14	9
Data base	14	8	5	12
Presentation software	15	8	6	12
Internet,e-mail, etc.	24	0	4	14

97-99	Use on a regular basis		FSU training adequate	
	yes	no	yes	no
Operating systems	17	4	12	5
Word processor	23	2	19	4
Spread sheet	21	3	16	7
Data base	17	6	8	11
Presentation software	14	11	12	7
Internet,e-mail, etc.	24	1	10	13

C. Graduate Satisfaction Levels

The next section deals with alumni satisfaction, in specific areas. Eleven graduate satisfaction type questions were asked, using a 'Likert' type rating scale. Each graduate was asked to 'strongly agree,' 'agree,' remain 'neutral,' 'disagree,' or 'strongly disagree' to these statements. Please see the table labeled "GRADUATE SATISFACTION LEVELS" following this discussion.

We initially looked at the responses two different ways:

- Statements receiving high scores in the 'strongly agree' category.
- Statements receiving high scores in both the 'strongly agree' AND 'agree' categories.

The technical education statement (68 %) and the statement concerning whether the graduate could recommend the AHM program to prospective students (70 %) jumped out as having the highest percent of 'strongly agree' responses.

There were five statements, out of eleven, that had a combined score ('strongly agree' or 'agree') over 90 %! The highest score went to recommending the program to others (94 %). We will come back to this very high score later, in the Recommendations chapter, as we feel we should use these graduates as recruiting tools. The other strong areas are:

- Written communication skills (93 %)
- Academic preparation at FSU (93 %)
- Oral communication skills (92 %)
- Achieving career goals (91 %)

It appears we are giving the students what they need to succeed; a good academic preparation, strong communication skills and the ability to achieve career goals. They are even willing to share the story with others, given the chance.

A sixth area that is relatively high is the technical portion of the graduate's education (86 %). One unfortunate problem, which the survey did not address, is that approximately 25 % of all AHM students transferred their technical education in from other community colleges. Due to the documented strength of Ferris' two

year technical programs, and the vast variations between community college programs (NATEF certification, individual transfer student comments, etc), we feel this number is rather high, considering this omission of data. But, again, this is a subjective evaluation and should be taken for what it's worth. After all, 86 % is a respectable score, no matter how it is evaluated.

Another anomaly appeared in the combined scores ('strongly agree' AND 'agree') that were lower than the top scores. The four lowest scores; AHM internship benefits (70 %), AHM education influenced my employer to hire me (77 %), problem solving skills (77 %) and AHM advising satisfaction (81 %) are not really 'low,' a large majority still gave us a "thumbs-up." The interesting thing is the connection between these 'low' scores and the rating category labeled 'neutral." Every category had 'neutral' numbers below ten percent, except for these 'low' scores, where the 'neutral' numbers were almost double. This is interesting, but we are not sure why.

Overall, our satisfaction scores are quite commendable. There are no glaring problems, based on these eleven statements. There are no 'disagree' or strongly disagree' numbers worth mentioning. The major story coming out of this ranking of statements has to be that 94 % of our graduates would recommend Ferris State University's AHM program to prospective graduates.

	Strongly Agree	Percent S.A.	Agree	Percent Agree	Neutral	Percent Neutral	Disagree	Percent Disagree	Strongly Disagree	Percent S. D.	Percent S.A + A.
My AHM degree helped me or is helping me achieve my career goals?	58	53%	42	38%	6	5%	3	3%	1	1%	91%
I am satisfied with my academic preparation at FSU	47	42%	56	50%	8	7%	0	0%	0	0%	93%
I am satisfied with the AHM advising I received at FSU	47	42%	43	39%	16	14%	2	2%	3	3%	81%
The AHM courses helped me develop strong solving skills	38	34%	48	43%	20	18%	5	5%	0	0%	77%
The AHM courses helped me develop strong written communication skills	57	51%	46	41%	5	5%	3	3%	0	0%	93%
The AHM courses helped me develop strong oral communication skills	55	50%	47	42%	5	5%	4	4%	0	0%	92%
The AHM courses helped me develop strong business management skills	33	30%	54	49%	19	17%	2	2%	3	3%	78%
My AHM education was a positive factor in my employer's decision to hire me	47	43%	38	35%	21	19%	2	2%	2	2%	77%
My technical education benefits me in my current position	75	68%	20	18%	10	9%	1	1%	5	5%	86%
The AHM internship benefited me, in terms of career path selection	44	40%	32	29%	22	20%	6	6%	5	5%	70%
I would recommend FSU's AHM program to prospective students	78	70%	26	23%	5	5%	1	1%	1	1%	94%

GRADUATE SATISFACTION LEVELS

D. Courses Not Taken, That Should've Been

An open-ended question was asked about the course or courses the graduate would take, that he or she DID NOT TAKE, to benefit their current employer. Please see the chart following this discussion, labeled "COURSES NOT TAKEN, THAT SHOULD'VE BEEN."

One problem encountered with open-ended questions is the number of responses, 19 in this statement alone. We took a few small liberties with some of the comments to keep the variety of responses low and easier to work with. If comments were similar in meaning we grouped them together. This still did not help, as the vast majority of responses were unique. There are an awful lot of single response items and very few responses worth discussion.

The one item that appeared the most, whether the respondent had a management or technical job title, is PC skills. Due to the nature of this type of course work, most employees would say this, now and in the future. Software application programs change on a daily basis. As soon as we learn a software program, it is outdated. A hand tally was performed on this question to see if a trend was apparent, in terms of graduation dates of those respondents using PC usage as a response. Fifty percent of the responses were from those graduating prior to 1994, the other fifty percent after 1994. No trend was found. This area can become quite expensive to stay current, not only in software, but also in hardware to run that software.

The only other responses on the management job title side worth mentioning are more sales and statistics classes. Eight percent of the management respondents indicated each course topic. These responses are probably indicative of the type of job the respondents are currently performing. Based on the variety of job titles given, and knowing from prior experience the variety of jobs our graduates accept, some do end up in sales related activities or number crunching type jobs.

The only other responses, on the technical job title side, worth mentioning are more customer relations, and/or technical type course work, math classes. Eight percent of the technical respondents indicated each course topic.

The customer relations response may indicate what is happening industry wide, the need to take care of those we deal with on a daily basis. It doesn't matter what job one is performing, customer relations is always important.

Technical training, just like PC training, is an ever evolving, constantly changing type activity. The responses from graduates in technical jobs probably indicate the type of job they are currently performing. Based on the variety of job titles given, and knowing from prior experience the variety of jobs our graduates accept, some do end up in highly technical type jobs.

The math responses are again probably indicative of the type of job being performed. Based on the variety of job titles given, and knowing from prior experience the variety of jobs our graduates accept, some do end up in highly technical type jobs.

The only other trend shown is the fact that almost 36 % of the respondents left this question blank. Hopefully the obvious answer to this high percentage is that the graduates felt they received the correct mix of classes at Ferris and are happy with their education. This can't be proven, but based on analysis of the satisfaction section, this could be, at least, partially true.

Unfortunately, based on a couple responses, this question might have confused some alumni. The two examples worth mentioning deal with the classes taken since graduation. One respondent mentioned classes through the company employing them, the other mentioned getting a masters. We turned these responses into blanks, as the question was not answered, as written. This could possibly skew the results, especially if there were more 'mistaken' responses we did not catch.

COURSES NOT TAKEN, THAT SHOULD'VE BEEN

Course Name	Management job title		Technical job title	
	#	%	#	%
PC skills	13	14%	14	23%
Sales	7	8%	2	3%
Statistics	7	8%	2	3%
Technical skills	4	4%	5	8%
Problem solving	4	4%	1	2%
Supplier relations	4	4%	1	2%
Time management	3	3%	1	2%
Business management	3	3%	0	0%
Communication skills	3	3%	1	2%
Customer relations	2	2%	5	8%
Project management	2	2%	1	2%
Math	1	1%	5	8%
Dealer operations	1	1%	0	0%
Ethics	1	1%	0	0%
Fin statement analysis	1	1%	0	0%
Fleet management	1	1%	0	0%
Foreign language	1	1%	0	0%
Psychology	1	1%	0	0%
Left blank	31	34%	23	38%
Totals	90	100%	61	100%

E. Most Desired Skills

The last section of the alumni survey deals with course work 'balance,' between communication skills and technical skills. Please see the chart following this discussion, labeled "MOST DESIRED SKILLS." The Automotive and Heavy Equipment industries thrive on high technology. All one has to do to confirm this fact is look under the hood of any late model car or truck, and the accompanying price sticker. They are jam packed full of electronic gear.

One might conclude that technical students should get as much technical education as possible, not worrying about other facets of their education, including communication skills, business management, and/or general education course work. The survey results show otherwise. No matter what type of job AHM graduates are performing, communication skills are listed at least one-and-a-half times more frequently than technical skills (those respondents with technical job descriptions) to over four times more frequently by those respondents with management job descriptions. Looking at all respondents together the figure approaches a three to one ratio.

Another interesting is the fact that the vast majority of ALL comments revolved around communication skills, business management skills, and problem solving skills, all three being closely interrelated. Sixty nine percent of all responses were in one of these categories.

How does one justify these numbers? The first answer is obvious, we are teaching the right amount of technical skills in our two-year curricula for the jobs our graduates are currently performing. The second answer is obvious, too. Communication skills are a necessity in this industry. Very few four-year degree graduates stay in technical hands-on jobs their entire career. They have the communication skills to be promoted into management positions.

We all talk about the student being the 'customer' and treating the 'customer' properly. We must also look at the student as being the end product; the new 'customer' then becomes the employer. With this in mind we can now go back and look at the results of the alumni survey a bit differently. The alumni surveyed have been in the work force anywhere from one to twelve years. They know what the real 'customer,' their bosses, want. The question dealing with desired skills actually reads: "If asked to prioritize the skills above, which one would you rank as the most desirable for your employer's needs?" Almost seventy percent

picked a skill dealing with communications as their number one skill most desirable for their employer's needs. This says a lot. Most technical students going through Ferris State University's two year feeder programs are not as well prepared in the communications area as the typical "college prep" student. They need the extra communications education we provide. They may not understand that today, as students, but they obviously recognize that as alumni!

MOST DESIRED SKILLS, BY JOB TITLE			
Job title	Comment	# Responding	Percent
Management	Communication skills	42	47%
Management	Business management	14	16%
Management	Problem solving	11	12%
Management	Technical skills	10	11%
Management	PC skills	2	2%
Management	Customer relations	1	1%
Management	Dealer operations	1	1%
Management	Left blank	9	10%
Total management respondents		90	100%
Technical	Communication skills	28	46%
Technical	Technical skills	17	28%
Technical	Problem solving	8	13%
Technical	Business management	2	3%
Technical	Left blank	6	10%
Total technical respondent s		61	100%

MOST DESIRED SKILLS, ALL JOB TITLES		
Communication skills	70	46%
Technical skills	27	18%
Problem solving	19	13%
Business management	16	10%
PC skills	2	1%
Customer relations	1	1%
Dealer operations	1	1%
Left blank	15	10%
Total all respondents	151	100%

SECTION 3

EMPLOYER FOLLOW-UP SURVEY

INTRODUCTION

During April of 2000, current employers of AHM program graduates were surveyed to obtain information regarding their satisfaction with the preparation of their employees at FSU. The employers were asked to rate the strengths and weaknesses of the graduates in five areas. The survey included questions about their company's current entry requirements and whether or not they would continue to hire graduates of the AHM program in the future.

RATIONALE FOR SURVEY

This survey was used to gauge the relevancy of the AHM program with the current needs of industry in today's marketplace. There is no better way to do this than to ask this question of the current employers of the program graduates. What follows is a list of the five areas on which this survey focused.

Employer Profile
- Company Name, Primary product or service
- Name of the departments where the graduates work
- Number of employees in those departments
- Number of graduates working in those departments

Employee Profile
- Job titles of the graduates
- Nature of the work they perform
- Most critical skills needed for that work

Professional Development (On-going training provided by each company)
- Management
- Teamwork
- Software
- Product Knowledge (Both sales and technical)
- Support for post-graduate education

Employer Evaluation (Preparedness of the graduates)
- Writing
- Interpersonal Communication
- Presentations
- Technical Knowledge
- Teamwork
- Time Management
- Computer Use
- Other areas

Employment Criteria
- Minimum GPA requirements
- Qualifying examinations used
- Future hiring decisions

A copy of the two page employer survey follows this page.

Employer Survey
Ferris State University

Automotive and Heavy Equipment Management Program

To keep our program current with the marketplace we need your feedback on the preparedness of our graduates or interns which you have hired. Please take the next few minutes to fill out this survey and return it to us by mail using the enclosed postpaid envelope. Thanks!

Employer Profile:

Company name _____

Primary product(s) or service(s) _____

Name of department(s) where graduate(s) work _____

_____

Number of employees in the department(s) _____

Number of AHM graduates in the department(s) _____

Employee Profile:

Job title(s) of graduate(s) _____

_____

Nature of work that graduate(s) perform _____

_____

Most critical skills needed for that work _____

_____

Professional Development:

What ongoing training does your company provide? (Please check all that apply)

Management	
Teamwork	
Software	
Product knowledge Technical	
Sales	
Tuition support for post graduate work	

Employer Evaluation:

Please assess the graduate/intern's preparedness: (please check appropriate response)

SKILL	WELL PREPARED	CAPABLE	POORLY PREPARED	NOT OBSERVED
WRITING				
INTERPERSONAL COMMUNICATION				
PRESENTATIONS				
TECHNICAL KNOWLEDGE				
TEAMWORK				
TIME MANAGEMENT				
COMPUTER USE				
OTHER _____				

If asked to prioritize the skills listed above, which one would rank as the most desirable for your company's needs?

_____

Are there any areas of preparedness you wish the graduate(s) possessed?

_____

_____

Employment Criteria:

Does your company require a minimum GPA? If so, that minimum is _____

Do applicants take any type of qualifying examination? Yes No

If yes, please describe: _____

Based on the experiences you have had, would you continue to hire graduates from Ferris State's Automotive and Heavy Equipment Management program?

Yes No

METHODOLOGY / DIFFICULTIES / RETURN RATES

The panel developed the survey and mailed it to employers at the conclusion of the winter semester in April 2000. The employers returned the surveys using pre-paid business-reply envelopes.

On some surveys, certain questions such as total employee count were left blank when the employer was unsure of the total number. This was especially true on those surveys where the employer was a large multi-national corporation. Only one employer failed to complete the second page of the survey.

A total of 161 surveys were sent to current and past employers of AHM program graduates. Of that number 16 (9.9%) were returned undeliverable by the U.S. Postal Service. A total of 37 (22.9%) surveys were returned completed, of which seven (4.3%) are current program advisory board members. These 37 surveys were used for this portion of the review.

DATA ANALYSIS

A. Employer Profile

This section of the survey provided a look at a diverse group of companies and corporations where the graduates presently are or have been employed. The range included automobile manufacturers, technical staffing vendors, heavy equipment and engine manufacturers, insurance companies, and aftermarket warranty providers. What follows is a list of the responses to the questions about the type of product or service is offered by each company, and the departments in which the program graduates work.

Product/Service	Departments where AHM grads work
Automobiles	Company wide, primarily technical
Diesel Engines	Customer Support
Automotive Parts	Service Training Development
Automobiles	Technical Service Hotline
Automobiles	Service Engineering
Automotive Paint & Related Products	Branch Operations
Manufacture Engine Components	
Automobiles	Acura Client Services

Vehicle Leasing & Maintenance	Fleet Operations
Fleet Management	Fleet Management Centers
Automotive Equipment Sales	Dealer Equipment Sales
Forklifts & Material Handling Products	Information Systems, Warranty Territory Parts & Service Mangers
Automobiles	Service Engineering
Automobiles	Technical Assistance Center
Car Transportation	Maintenance Garage
Automotive Sales & Service	Service, Sales
Extended Warranties	Mechanical Repair Claims
New/Used Vehicle Sales/Service	Service Department
Automobiles	Product Technical, Warranty, Customer Relations, Service and Parts Operations
Insurance	Estimatics - Claims
Technical Publications & Staffing	Service Information
Recycling Metals and Paper	Equipment Repair
Automobiles	Sales & Marketing
Technical Staffing	Technical Hotline
Technical Staffing	Technical Hotline
Insurance	Auto Claims
Automobiles	Technical Operations
Diesel Engines	Technical Service, Parts Marketing, Engineering
Technical Contract Supplier	GM Proving Grounds
Aftermarket Parts	Sales
Automobiles	Regional Offices
Automobiles	Technical Assistance, Dealer Placement, Warranty Administration, District Managers
Automobiles	Technical Services

Diesel Engines	Customer Assistance Center/Rapidserve
Automobiles	Service Department
Automobiles	Customer Relations, Training, Field Representatives

B. Employee Count

The total number of employees listed by employers at the companies listed above was **6422**. It should be noted that several of the large corporation employers left this question blank because they did not know the answer and placed a "?" in the space provided. The total number of program graduates listed was **127**. Automobile manufacturers employed the largest numbers of graduates.

C. Employee Profile

When asked what the job titles, the nature of the work performed, and the most critical skills needed by their current employees are, the responses were varied but did show a similar theme. The majority of the program graduates are employed in careers that rely heavily on their technical background. Most stated that oral and written communication skills were critical. What follows is a list of the responses to these three elements of the survey.

Job Titles	Work Performed	Most Critical Skills
Corporate/Management Trainees	Technical	Too many to list
Service Engineers	Field Test Support, Customer Policy Adjustments, Write Service Bulletins	Technical Knowledge, Writing Skills
Assistant Developer	Course Development	Technical Knowledge of Automotive Computer Systems
Service Engineers	Technical Assistance	Technical Knowledge, Communication Skills
Training Developers	Development of Technical Training Videos	Automobile Knowledge and PC Skills
Branch Service Operations Managers	Branch Manager	Communication, Time Management, Leadership
Vice President of Operations	Oversee In-house Operations	

Client Services Specialist	Resolve Customer Concerns	Good Verbal and Written Communication Skills. Basic Knowledge of Automotive technical
Student Intern	Customer Service, Maintenance Authorization, Accepting & Inspecting Vehicles	People Skills, Knowledge of Automobiles, Management Skills
Fleet Manger, Fleet Service Representative, Computer Systems Manager	Managing vehicle fleets from acquisition to disposal. Management of computer network	Knowledge of vehicles, Communication (Written and Oral), Customer Service, Negotiations, Project Management
Dealer Consultant	Inside sales – Customer Support – Field Sales Support	Communication and the ability to work within a team environment
Information Systems Administrator, Warranty Analyst, Territory Parts & Service Manager	Administer Maintenance of Computer Systems, Process Warranty Claims, Warranty Reports, Communication with Dealers/Customers	Computer Skills, Communication & Technical knowledge, Knowledge of Dealer Operations
Advance Vehicle Service Engineer	Service Manual and Procedure Validation	Autobody Technical Skills, Computer Skills, Management Skills
Technical Assistance Engineer	Help dealer technicians repair trucks over the phone.	Read technical information, Communications Skills, Good work ethic and desire to learn.
	Heavy duty truck and trailer repair.	Overall Mechanical Knowledge
Service Consultants, Sales Consultants, Service Interns	Service Scheduling, Automobile Sales	Interpersonal Communication, Computer Skills, Time Management, Organization, Team Skills
Telephone Adjuster Level II	Authorize Warranty Claims	Automotive Technical

Assistant Service Manager	Customer Service Write-up	Customer Relations Skills, Typing, Product Knowledge
Corporate/Management Trainees		Computer Skills, Teamwork
Claim Adjustors	Auto Estimatics	Estimate Damage
Technical Writers	Research & Develop automotive service procedures Equipment Repair	Technical Knowledge and Writing Skills
District Manager	Supervision of Dealership Operations	Listening, Problem Resolution
Product Problem Engineer	Technical Assistance	Problem Solving
Product Problem Engineer	Technical Assistance	Technical Skills
Estimatics	Claims Management	Teamwork, Customer Service Focus, Self-Motivation, Technical Knowledge
Service Training Specialist	Technical Training	Presentation Skills, Writing
Technical Service Engineers	Service/Sales/Applications Engineering	Technical Skills, Communication Skills, Report Writing, Failure Analysis, People Skills
Technicians/Durability Test Analysts	Automotive Testing	Technical Skills
Wholesale Manager	Distribution Representative	Communication, Sales, Product Knowledge, Management
Technical Hotline Engineers, Field Service Engineers, Customer Service Manager	Providing Technical Assistance for Fixed Operations	Communication Skills, Interpersonal Skills
Technical Advisors, Dealer Placement Manager, Warranty Manager, District Manager	Technical Information Mgt, Dealership finance	Teamwork, Oral and Written Communication
Product Engineer, District Manager	Quality Assurance, Field Representatives	Technical Skills, Communication Skills, Ability to learn new skills

Rapid Serve Engineer, Customer Assistance Specialist	Processing Warranty Claims, Assisting Customers	Technical Skills, Communication Skills
Service Manager	Manage Service Department	Communication and Organizational Skills
Customer Relations Specialist	Product Support, dealing with Customers, Dealers, Field Representatives	Oral Communication Skills, Technical Knowledge, Good follow-up skills
Assistant Manager, Service Manager	Retail Management, Sales & Service Dept. Management	

D. Professional Development

When asked if the employer's company offered any on going training, a significant portion of the employers responded in the affirmative in each category. The number of companies offering any continuing training in the area of management skills was 30 out of 37 or 81.1%. The number of companies offering any continuing training in the area of teamwork skills was 31 out of 37 or 83.8%. The number of companies offering any continuing training in the area of software training was 30 out of 37 or 81.1%. The number of companies offering any continuing training in the area of product knowledge that focused on the technical aspects of the product or service was 32 out of 37 or 86.5%. The number of companies offering any continuing training in the area of product knowledge that focused on sales was 23 out of 37 or 62.2%. The number of companies offering any kind of assistance to employees who are interested in continuing their education (post-graduate) was 27 out of 37 or 73%. It should be noted that the majority of companies that offered this benefit are wholesale manufacturing or distribution businesses. In contrast, the majority of retail companies do not offer this benefit.

Professional Development					
			Product Knowledge		Tuition
Management	Teamwork	Software	Technical	Sales	Support
30	31	30	32	23	27
81.1%	83.8%	81.1%	86.5%	62.2%	73.0%

E. Employer's Employee Evaluation - Writing Skills

When asked to evaluate the preparation of the AHM program graduates in the area of writing skills, the employer's responses were almost evenly divided between "well prepared" at 37.8% and "capable" at 40.5%. One employer responded with "poorly prepared" (2.7%).

It should be noted that only 30 out of 37 employers marked this question with seven leaving it unanswered.

Employee Evaluation ***Writing***			
Well Prepared	Capable	Poorly Prepared	Not Observed
14	15	1	0
37.8%	40.5%	2.7%	0.0%

F. Employer's Employee Evaluation - Interpersonal Communication

When asked to evaluate the preparation of the AHM program graduates in the area of interpersonal communication, 17 (45.9%) employers responded "well prepared" and 15 (40.5%) responded as the graduates being "capable".

It should be noted that 32 of the 37 employers marked this question with five leaving it unanswered.

Employee Evaluation ***Interpersonal Communication***			
Well Prepared	Capable	Poorly Prepared	Not Observed
17	15	0	0
45.9%	40.5%	0.0%	0.0%

G. Employer's Employee Evaluation - Presentation Skills

When asked about the presentation skills of the program graduates, the majority (13) of the employers responded that they were "well prepared" (35.1%). Eleven (29.7%) employers responded with the graduates as being "capable". Two (5.4%) employers responded that they were "poorly prepared" and five (13.5%) reported "not observed".

It should be noted that 31 of the 37 employers marked this question with six leaving it unanswered.

Employee Evaluation ***Presentations***			
Well Prepared	Capable	Poorly Prepared	Not Observed
13	11	2	5
35.1%	29.7%	5.4%	13.5%

H. Employer's Employee Evaluation - Technical Knowledge

Of all of the questions asked, the response to this one was the most positive of all. The employers responded most favorably to the question of technical knowledge as a critical skill for the success of the program graduates. Twenty-eight (75.7%) of the employers rated the graduates of the program as "well prepared". Four (10.8%) responded that they were "capable." There were no responses for "poorly prepared" or "not observed".

It should be noted that 32 of the 37 employers marked this question with five leaving it unanswered.

Employee Evaluation ***Technical Knowledge***			
Well Prepared	Capable	Poorly Prepared	Not Observed
28	4	0	0
75.7%	10.8%	0.0%	0.0%

I. Employer's Employee Evaluation – Teamwork

As has been stated previously, the employers value teamwork. When asked to rate the preparation of the program graduates in this area, twenty (54.1%) said that they were "well prepared" and eleven (29.7%) said that they were "capable". No employers responded that the program graduates were "poorly prepared" and one (2.7%) stated that this skill had not been observed.

It should be noted that 32 out of the 37 employers responded to this question with five leaving it unanswered.

Employee Evaluation ***Teamwork***			
Well Prepared	Capable	Poorly Prepared	Not Observed
20	11	0	1
54.1%	29.7%	0.0%	2.7%

J. Employer's Employee Evaluation - Time Management

When asked to rate the preparation of the program graduates in this area, eleven (29.7%) said that they were "well prepared" and eighteen (48.6%) said that they were "capable". No employers responded that the program graduates were "poorly prepared" and two (5.4%) stated that this skill had not been observed.

It should be noted that 31out of the 37 employers responded to this question with six leaving it unanswered.

Employee Evaluation ***Time Management***			
Well Prepared	Capable	Poorly Prepared	Not Observed
11	18	0	2
29.7%	48.6%	0.0%	5.4%

K. Employer's Employee Evaluation - Computer Skills

When asked to rate the preparation of the program graduates in this area, fifteen (40.5%) said that they were "well prepared" and fifteen (40.5%) said that they were "capable." One (2.7%) employer responded that the program graduates were "poorly prepared" and none stated that this skill had not been observed.

It should be noted that 31 out of the 37 employers responded to this question with six leaving it unanswered.

Employee Evaluation ***Computer Use***			
Well Prepared	Capable	Poorly Prepared	Not Observed
15	15	1	0
40.5%	40.5%	2.7%	0.0%

I. Employer's Employee Evaluation - Other Skills

When asked to rate the preparation of the graduates in other areas, three employers responded with comments. One rated their employee as "well prepared" with a ***professional attitude***, while another rated their employee "capable" in ***leadership***. The third employer responded with a "poorly prepared" comment when it came to ***failure analysis.***

Employee Evaluation ***Other***			
Well Prepared	Capable	Poorly Prepared	Not Observed
1	1	1	0
2.7%	2.7%	2.7%	0.0%

GRADUATE PREPAREDNESS

As a conclusion to the section of the questionnaire on the evaluation of the program graduates by their employers, two additional questions were asked.

The first simply asked the employer to rank the most desirable skill for their company's needs. The number one skill that the employers felt was the most desirable was ***interpersonal skills*** with 15 responses out of 37 surveys (40.5%). A close second as a most desirable was ***technical skills*** with 14 responses out of 37 surveys (37.8%).

The second follow-up question asked if there were any areas in which the graduates of the program were lacking. The responses to this question were varied. The one skill that did however stand out was the area of writing skills with 3 responses (8%). It should be noted that on18 of the 37 surveys (48.6%) this question was left unanswered.

EMPLOYMENT CRITERIA

A. Minimum GPA

When asked if the employer's companies had any minimum GPA requirements, 17 employers (45.9%) said that they do and 20 (54.1%) said they do not. Of those who have a minimum requirement, the average minimum GPA was **2.98**.

B. Qualifying Examinations

When asked if the employer's companies required any type of qualifying exam, 14 (37.8%) responded that they do and 20 (54.1%) do not. Of those that do, the types of exams given to prospective employees vary from basic technical knowledge to math and writing skills.

C. Continued Hiring of Graduates

When asked if they would continue to hire graduates of the AHM program, 33 (89.2%) responded that they would, and no employer stated that they would not. Four (10.8%) employers left this question unanswered.

RESULTS

The employers of AHM program graduates appreciate the balance that the program provides between communication and technical skill preparation. This mirrors the strong emphasis that the program places in its mission statement by providing the industry with employees that are well trained in these areas.

SECTION 4

STUDENT EVALUATION

INTRODUCTION

In March of 2000, all current students (both juniors and seniors) were surveyed to obtain information regarding demographics, their overall satisfaction with the program, as well as curriculum and quality of instruction related issues. Students were also asked for suggestions and comments on ways to improve the overall effectiveness of the program.

RATIONALE FOR SURVEY

There were a number of concerns and interests our panel wanted to learn about from this survey:

Student Demographics

- Where are our students coming from?
- What types of associate degrees do they have?
- Where are they getting their associate degrees?
- Did they take vocational/technical classes in an auto or heavy equipment related program in high school?
- What percentage of our students come to us with a "College Prep" background?
- What percentage of students intended to get a B. S. degree when they first started in their associate degree program?
- What motivated our students to pursue a "Management Focus"?
- How did they hear about Ferris and the AHM program?
- What are their graduation and long-term career plans?

Satisfaction with the Program

- How satisfied are our students as far as the program preparing them for their desired career?
- Do our students feel they have been intellectually challenged?
- Do our students feel that the program has helped them improve their overall communication skills?

Curriculum/Quality of Instruction

- Quality of instruction
- Relevance of courses
- Faculty teaching, advising, and counseling skills
- Faculty involvement and availability outside the classroom
- Quality of AHM computer lab (AC-104)

A copy of the four-page student survey immediately follows this page.

Student Survey
Ferris State University
Automotive & Heavy Equipment Management Program

1. Designate the AHM core courses you have completed as well as those you are currently enrolled in, by placing an "X" in the appropriate box.

☐ AHEM 301	☐ AHEM 302	☐ AHEM 401	☐ AHEM 402
☐ AHEM 450	☐ AHEM 303		☐ AHEM 404
	☐ AHEM 360		

2. From which high school did you graduate?

   High School: _____

   City/State: _____

3. Where did you receive your associate degree?

   _____ A. Ferris State
   _____ B. Other (Specify) Name: _____

   City/State : _____

4. Please indicate the area of your associate degree. If more than one, mark all that apply.

   _____ A. Automotive Service Technology
   _____ B. GM – ASEP
   _____ C. Ford – ASSET
   _____ D. Chrysler – CAP
   _____ E. Automotive Body Technology
   _____ F. Heavy Equipment Technology
   _____ G. Other (Please specify) _____

5. Prior to entering your associate degree program, did you attend a vocational/technical automotive or heavy equipment related program in high school?

_____ A. YES
_____ B. NO

6. How would you characterize your high school coursework focus?

_____ A. College Prep
_____ B. Vocational/Technical
_____ C. Other (Please specify) _____

7. Prior to entering your associate degree program, did you intend to go on for a B.S. degree?

_____ A. YES
_____ B. NO

8. What led you to pursue a B.S. degree with a "management focus"?

9. Where/How did you originally hear about **Ferris State University**?

_____ A. High School Counselor
_____ B. Ferris Admissions Counselor/Recruiter
_____ C. High School/Career Center - Auto or Heavy Equip. Teacher
_____ D. Ferris State Alumni
_____ E. Other (Who? Please specify!) _____

10. Where/How did you hear about **the AHM Program**?

_____ A. High School Counselor
_____ B. Ferris Admissions Counselor/Recruiter
_____ C. High School/Career Center – Auto or Heavy Equip. Teacher
_____ D. Faculty Member in Associate Degree Program
_____ E. Ferris State Alumni
_____ F. Other (Who? Please specify!) _____

11. What are your plans upon graduation? (Select one from the list below.)

_____ A. Work in the **"Wholesale"** side of the industry
_____ B. Work in the **"Retail"** side of the industry
_____ C. Work in **"Fleet Management"**
_____ D. Work in the **"Aftermarket"**
_____ E. Work as a **"Technical Writer"**
_____ F. Work as a **"Government Agency Manager"**
_____ G. Work as a **"Trainer"** in industry
_____ H. Work in the **"Insurance"** side of the industry
_____ I. **"Start my own business"**
_____ J. Continue on to **graduate school** – as a full-time student
_____ K. Other (Please specify.) _____

12. What is your long-term career goal? (Select one or two from the list below.)

_____ A. Work in the **"Wholesale"** side of the industry
_____ B. Work in the **"Retail"** side of the industry
_____ C. Work in **"Fleet Management"**
_____ D. Work in the **"Aftermarket"**
_____ E. Work as a **"Technical Writer"**
_____ F. Work as a **"Government Agency Manager"**
_____ G. Work in **"Training/Education"** within industry
_____ H. Work in the **"Insurance"** side of the industry
_____ I. **"Start my own business"**
_____ J. Attend **graduate school**
_____ K. Other (Please specify.) _____

13. On a scale of 1 to 5, ***5 being the highest***, how do you rate the AHM program in terms of:

_____ A. Preparation for a career

_____ B. Intellectual Challenge

_____ C. Improvement of your overall communication skills

14. On a scale of 1 to 5, ***5 being the highest***, rate the AHM curriculum in the following areas:

_____ A. The development of writing skills
_____ B. The development of verbal communication skills
_____ C. The development of computer skills
_____ D. The development of industry management skills
_____ E. The development of collaborative/teamwork skills
_____ F. Faculty teaching expertise within their program area
_____ G. Faculty academic counseling assistance and availability outside the classroom
_____ H. Faculty involvement in providing internship and full-time employment information and career advice
_____ I. Quality of the AHM computer lab - hardware and software

15. Feel free to make any general comments you may have regarding the AHM program, in the space provided below.

THANK YOU

METHODOLOGY / DIFFICULTIES / RETURN RATES

Our panel developed the survey instrument and students were surveyed during AHM class time (AHEM 303, AHEM 402, & AHEM 404) in March of 2000.

All on-campus students participated in the survey, except one student who said "I have filled out numerous FSU surveys since I've been here and nothing ever seems to improve or change - so I refuse to waste anymore of my time on surveys."

The three students, that were not taking AHM core courses during winter semester - but that were on campus taking relateds, were tracked down individually and came in and completed the survey on their own time.

A total of 68 surveys (98.6% of total possible) were completed and used for this portion of the review.

DATA ANALYSIS

Question number one of the survey showed an exact 50 - 50 percentage split between juniors and seniors completing the survey. (34 or each)

Question number two showed that 55 out of the 68, or 80.9% of AHM students graduated from a Michigan high school.

Question three further showed 54 out of the 68, or 79.4% of the AHM students received their associates degree from Ferris. The remaining 14, or 20.6% of the students, transferred in from the following institutions:

Bay de Noc Community College (2)
Delta College (2)
Joliet Junior College (2)
Triton College
U.T.I.
Northwestern College
Kirtland Community College
Mid-Michigan Community College
Lansing Community College
Alpena Community College
Southwestern Michigan College

Question four, which had to do with the type of associate degree students came into the program with, showed the following:

50.0%	Auto Service
17.6%	Auto Body
16.2%	GM - ASEP
4.4%	Ford ASSET
4.4%	Chrysler CAP
4.4%	Heavy Equipment
2.9%	Other

The 2.9%, shown as "Other", represents two students that received a Toyota T-10 associate degree from Joliet Junior College.

The Heavy Equipment feeder percentages have fallen considerably since the fall of 1996 when the Heavy Equipment Service Engineering Technology (HSET) program first began. Heavy Equipment students now have two options, but since the HSET program is housed in the Heavy Equipment Center, students have been discouraged from going the AHM route.

HSET fall enrollment numbers:

1996	18
1997	33
1998	29
1999	21
Avg.	25

Prior to 1996, the majority of these students would have gone on into AHM.

Question number five asked students if they had ever taken a vocational / technical auto or heavy equipment related program in high school. Data shows where 40 out of the 68 or 58.8% said that they had.

Question number six showed where 55.7% of students were in a "College Prep" coursework focus in high school, while 35.7% had a "Vocational / Technical Prep" focus. The balance (8.6%) were in areas such as "General", "General Education Basics", "Business", or didn't specify.

The AHM program faculty have a new (0+4) degree option on the drawing board, that is less technical and more management focused - designed to increase the appeal to women and minorities, who aren't interested in first becoming a technician. Consequently, the AHM faculty feel the number of "College Prep"' focused students enrolling in this program will increase.

Question number seven shows 50% of the students did not plan on getting a B. S. degree prior to entering their associate degree program. (Obviously the other 50% did.)

Question number eight asked students why they decided to pursue a B. S. degree with a management focus. The results of the 68 surveyed are as follows:

20 - "Didn't want to work as a technician"
19 - "The AHM program offers a lot of opportunity/flexibility"
11 - "Wanted to get a B. S. degree"
5 - "Wanted more business and less technical"
5 - "Wanted to go for the money"
4 - "Because of the AHM program's reputation"
1 - "Peer Pressure"
1 - "Hated what I saw in management while I worked at the dealership and decided I wanted to learn how to do it right"
1 - "Too much math in an engineering program"
1 - (Left Blank)

Question number nine asked students how they originally heard about Ferris. The results are as follows:

38% High School/Career Center Auto or Heavy Equipment Teacher
19% Ferris State Alumni
7.6% High School Counselor
5.1% Ferris Admissions Counselor/Recruiter
30% Other (*)

(*) For the 30% in the "Other" category, see the following responses:
"My auto/heavy equipment instructor from my associate degree program" (transfer students)
"Word of Mouth" - friends, family, etc.
"I researched it and found it myself"
"Students currently in the program"
"Through VICA."
"From Larry Roman"
"Ferris Automotive Faculty/Staff"
"Botswana Government"
"Born and raised in the Big Rapids area"
"From U.T.I."
"From the Internet"

Question number ten asked about how they heard specifically about the AHM program. The results are as follows:

32.9% Faculty Member in Associate Degree Program
17.1% Ferris Admissions Counselor / Recruiter
15.9% High School / Career Center Auto or Heavy Equipment Teacher
14.6% Ferris State Alumni
3.7% High School Counselor
15.9% Other (*)

(*) For the 15.9% in the "Other" category, see the following responses:
"My auto instructor from my associate degree program" (transfer student)
"Students in the AHM Program" (4)
"From FSU's catalog" (2)
"Mr. Ropele (AHM faculty member)" (2)
"Mr. Denny (AHM faculty member)"
"A fraternity brother"
"U.T.I."
"From the Internet"
"From Bay de Noc Community College"

The highest responses to questions nine and ten indicate that high school and associate degree program faculty members have the greatest effect on spreading the word about Ferris and the AHM program. Recruiting efforts must continue to improve in this area.

Question eleven asked students about their career plans upon graduation. The top four responses were as follows:

39.5% Plan on going to work on the "Wholesale" or corporate side of the industry.
34.8% Plan on going to work on the "Retail" side of the industry.
5.3% Plan on working on the "Insurance" side of the industry.
5.3% Plan on working as technical writers

Question twelve was very similar to eleven, but was directed more towards the student's long-term goals. The top four responses were as follows:

29.2% Plan on working "Wholesale".
27.0% Plan to start and operate their own business.
17.5% Plan on working "Retail"
10.1% Plan on working in "Training / Education"

Question thirteen asked the student to rate the AHM program, on a sale of 1 to 5, (5 being the highest) in three areas ("Preparation for a Career", "Intellectual Challenge", and "Improvement of Their Communication Skills"). The results were as follows:

4.20 Preparation for a Career
4.23 Intellectual Challenge
4.09 Improvement of Your Overall Communication Skills

Question fourteen asked students to rate the program, on a scale of 1 to 5, (5 being the highest) in nine different areas. The results.

4.15 The development of writing skills
4.16 The development of verbal communication skills
3.75 The development of computer skills
3.82 The development of industry management skills
3.45 The development of collaborative/teamwork skills
4.07 Faculty teaching expertise within program areas
4.06 Faculty academic counseling assistance and availability
4.08 Faculty involvement in providing internship and full-time employment information and career advice
3.78 Quality of the AHM computer lab (AC-104)

The comments from students overall were very positive. At the last meeting, Advisory Committee members specifically discussed ways of improving the four areas that fell below 4.0 on the grading scale. As a result of these discussions, the computer lab was upgraded with 4 new PCs and Microsoft - Office 2000 during the summer of 2000. In addition, faculty members are considering other means of integrating teamwork-building activities into the program as well as defining what students mean when they say they would like to see the development of more industry management skills. Progress in these areas will be monitored over the next academic year.

A copy of the four-page student survey, along with the results, immediately follows this page.

Student Survey
Ferris State University
Automotive & Heavy Equipment Management Program

1. Designate the AHM core courses you have completed as well as those you are currently enrolled in, by placing an "X" in the appropriate box.

☐ AHEM 301	☐ AHEM 302	☐ AHEM 401	☐ AHEM 402
☐ AHEM 450	☐ AHEM 303		☐ AHEM 404
	☐ AHEM 360		

***NOTE:* 68 total students were surveyed. (34 juniors & 34 seniors)**

2. From which high school did you graduate?

   High School: _____

   City/State: _____

Q2	
H.S. where graduated	
In-State	Out-of-State
55	13
80.9%	19.1%
68	

3. Where did you receive your associate degree?

   _____ A. Ferris State
   _____ B. Other (Specify) Name: _____

   City/State : _____

Q3		
Place where A.A.S. degree was earned		
Ferris State	Other	School
54	14	
79.4%	20.6%	
68		

4. Please indicate the area of your associate degree. If more than one, mark all that apply.

_____ A. Automotive Service Technology
_____ B. GM – ASEP
_____ C. Ford – ASSET
_____ D. Chrysler – CAP
_____ E. Automotive Body Technology
_____ F. Heavy Equipment Technology
_____ G. Other (Please specify) _____

Q4						
Area of A.A.S. degree						
A.	B.	C.	D.	E.	F.	G.
34	11	3	3	12	3	2
50.0%	16.2%	4.4%	4.4%	17.6%	4.4%	2.9%
68						

5. Prior to entering your associate degree program, did you attend a vocational/technical automotive or heavy equipment related program in high school?

Q5	
Voc./tech. related program in H.S.	
A. Yes	B. No
40	28
58.8%	41.2%
68	

6. How would you characterize your high school coursework focus?

_____ A. College Prep
_____ B. Vocational/Technical
_____ C. Other (Please specify) _____

Q6		
H.S. coursework focus		
A.	B.	C.
39	25	6
55.7%	35.7%	8.6%
70		

7. Prior to entering your associate degree program, did you intend to go on for a B.S. degree?

Q7	
B.S. degree?	
A. Yes	B. No
34	34
50.0%	50.0%
68	

8. What led you to pursue a B.S. degree with a "management focus"?

9. Where/How did you originally hear about **Ferris State University**?

_____ A. High School Counselor
_____ B. Ferris Admissions Counselor/Recruiter
_____ C. High School/Career Center - Auto or Heavy Equip. Teacher
_____ D. Ferris State Alumni
_____ E. Other (Who? Please specify!) _____

Q9				
How did you hear about Ferris State?				
A.	B.	C.	D.	E.
6	4	30	15	24
7.6%	5.1%	38.0%	19.0%	30.4%
79				

10. Where/How did you hear about **the AHM Program**?

_____ A. High School Counselor
_____ B. Ferris Admissions Counselor/Recruiter
_____ C. High School/Career Center – Auto or Heavy Equip. Teacher
_____ D. Faculty Member in Associate Degree Program
_____ E. Ferris State Alumni
_____ F. Other (Who? Please specify!) _____

Q10					
How did you hear about AHM?					
A.	B.	C.	D.	E.	F.
3	14	13	27	12	13
3.7%	17.1%	15.9%	32.9%	14.6%	15.9%
82					

11. What are your plans upon graduation? (Select one from the list below.)

_____ A. Work in the **"Wholesale"** side of the industry
_____ B. Work in the **"Retail"** side of the industry
_____ C. Work in **"Fleet Management"**
_____ D. Work in the **"Aftermarket"**
_____ E. Work as a **"Technical Writer"**
_____ F. Work as a **"Government Agency Manager"**
_____ G. Work as a **"Trainer"** in industry
_____ H. Work in the **"Insurance"** side of the industry
_____ I. **"Start my own business"**
_____ J. Continue on to **graduate school** – as a full-time student
_____ K. Other (Please specify.) _____

Q11										
Plans after graduation										
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.
30	16	3	3	4	0	2	4	2	3	9
39.5%	34.8%	3.9%	3.9%	5.3%	0.0%	2.6%	5.3%	2.6%	3.9%	11.8%
76										

12. What is your long-term career goal? (Select one or two from the list below.)

_____ A. Work in the **"Wholesale"** side of the industry
_____ B. Work in the **"Retail"** side of the industry
_____ C. Work in **"Fleet Management"**
_____ D. Work in the **"Aftermarket"**
_____ E. Work as a **"Technical Writer"**
_____ F. Work as a **"Government Agency Manager"**
_____ G. Work in **"Training/Education"** within industry
_____ H. Work in the **"Insurance"** side of the industry
_____ I. **"Start my own business"**
_____ J. Attend **graduate school**
_____ K. Other (Please specify.) _____

Q12										
Long-term goals										
A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.
26	11	3	2	0	0	9	2	24	4	8
29.2%	17.5%	3.4%	2.2%	0.0%	0.0%	10.1%	2.2%	27.0%	4.5%	9.0%
89										

13. On a scale of 1 to 5, ***5 being the highest***, how do you rate the AHM program in terms of:

_____ A. Preparation for a career

_____ B. Intellectual Challenge

_____ C. Improvement of your overall communication skills

Q13		
Ratings		
A.	B.	C.
306.5	309	298.5
4.20	4.23	4.09

14. On a scale of 1 to 5, ***5 being the highest***, rate the AHM curriculum in the following areas:

_____ A. The development of writing skills
_____ B. The development of verbal communication skills
_____ C. The development of computer skills
_____ D. The development of industry management skills
_____ E. The development of collaborative/teamwork skills
_____ F. Faculty teaching expertise within their program area
_____ G. Faculty academic counseling assistance and availability outside the classroom
_____ H. Faculty involvement in providing internship and full-time employment information and career advice
_____ I. Quality of the AHM computer lab - hardware and software

Q14								
AHM curriculum ratings by area								
A.	B.	C.	D.	E.	F.	G.	H.	I.
303	304	274	279	252	297	296.5	298	276
4.15	4.16	3.75	3.82	3.45	4.07	4.06	4.08	3.78

15. Feel free to make any general comments you may have regarding the AHM program, in the space provided below.

SEE THE FOLLOWING PAGES FOR INDIVIDUAL STUDENT COMMENTS!

STUDENT COMMENTS / RECOMMENDATIONS

Of the 34 seniors surveyed, 23 did not write comments or make any recommendations. The following is a list of direct quotes from the 11 that did.

"The communication skills that this program taught me will be present/dominant for the rest of my life. The job placement is great!"

"I could write a book about all of the good people working to help me through the semesters. The staff of the auto-related programs were extremely helpful and I appreciate all the effort and time for me. Thank you very much! Cliff"

"All the teachers are wonderful and qualified but you need to send Mr. Denny on a sabbatical to update his knowledge on how the industry is currently run."

"I feel the program is moving in the right direction by constantly changing in an attempt to make the grads more prepared for the current industry. I have heard many compliments on the program. Challenging but worthwhile."

"I have had all three AHM instructors and feel that Mr. Ropele and Mr. VanderWoude are excellent instructors. They seem to put everything they have into helping and teaching the students."

"Focuses too heavily upon dealership management when in reality very few people go to work in a dealership setting."

"Please send Mr. Denny, who is a wonderful teacher, on sabbatical. Give Mr. VanderWoude a large bonus $ and a raise $."

"In all I feel the program has been beneficial, although I can't help but feel some things couldn't have been taken care of a little easier."

"I would like to know more about the facts of this industry. I hope you will provide or recommend me with the information of how to be successful in the future. Thank you!"

"I feel that 2 out of the 3 AHM instructors are top notch."

"Keep moving with a pace equal to industry so that students may benefit and prepare for what is awaiting them in the job market. Because the goal upon graduation is to find a career not just another job!"

Of the 34 juniors surveyed, 25 did not write comments or make recommendations. The following is a list of direct quotes from the 9 that did.

"In some classes the tests are can be overwhelming because they cover so much information at one time."

"Denny needs to get some more education on teaching. He is unorganized and disruptive to the learning process."

"I have learned a lot of things I would never had known on the dealership side, since all my life I was on the teaching side. I really learned a lot, thanks to all the dedicated teachers in the program."

"I chose AHM because I wanted to manage people and/or departments. Another reason I chose AHM was because all of the opportunities to enter into the automotive field/industry."

"I would like to know more about employment in the aspect of what we learn now and when we will use it in the field."

"I feel that the AHM program is a very well balanced program."

"Drop 450" (AHEM 450)

"It is a good program and I have learned a lot, but I think as the years go on, I think all of the classes should be on WEBCT."

"Pressure is put on the student to produce projects, which are very long and exhausting along with doing the same outline, synopsis critiques, projects in every class."

SECTION 5

FACULTY PERCEPTIONS

INTRODUCTION

The five faculty members in the AHM program (three full-time and two adjuncts) were surveyed to determine if the program is headed in the right direction and if there are any modifications needed. Members met as a group and with advisory committee members on multiple occasions to discuss these issues.

The general consensus is that the program has done an excellent job over the years in meeting its role and mission. (High placement rates, high starting salaries, strong industry support, low cost, high productivity as well as quality faculty and curriculum, all speak for themselves.)

Faculty members however did express concerns for the future. These concerns are:

Enrollment - With the addition of another B. S. degree option (Automotive Engineering Technology) for our feeder students, what will happen to our enrollment? The Heavy Equipment Service Engineering Technology (HSET) B. S. degree program, which began back in 1996, has already affected AHM's enrollment.

Southeast Michigan Course Offerings - With the lack of adequate support from Macomb Community College's Automotive Department, there are concerns as to how long we can maintain our presence in the Detroit market (Macomb Community College's University Center)?

Adequate and Consistent Funding - Faculty members have had to beg, borrow, and steal over the years to come up with the needed funds to upgrade equipment/technology and to grow. Faculty are looking forward to the implementation of Dean Waldheim's plan, of adding a development officer, to help in this area.

Administrative Effectiveness - Faculty members are hoping to see increased consistency in leadership within the College of Technology (Six deans since December of 1993). Additionally, for the past six years, the AHM program has had a program coordinator. This position was eliminated in the most recent College of Technology restructuring (Winter 2000). With this recent change, faculty are concerned about not having adequate administrative understanding, representation and support at the department level.

Individual faculty surveys, as well as a summary copy showing the average score for each question follows this page. Please note that some faculty made comments on a couple of the questions. The results speak for themselves.

PROGRAM REVIEW PANEL EVALUATION

Program: AHM (5 Faculty Members)

Instructions: Circle the number which most closely describes t he program you are evaluating.

1. Student Perception of Instruction — **Average Score** 4.3 (21.5/5)

I I III

5	4.5	4	3	2	1

Currently enrolled students rate instructional effectiveness as extremely high.

Currently enrolled students rate the instructional effectiveness as below average.

2. Student Satisfaction with Program — **Average Score** 4.7 (23.5/5)

II III

5	4.5	4	3	2	1

Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.

Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. Advisory Committee Perceptions of Program — **Average Score** 4.8 (24.0/5)

III II

5	4.5	4	3	2	1

Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.

Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. Demand for Graduates — **Average Score** 5.0 (25/5)

IIII

5	4	3	2	1

Graduates easily find employment in field.

Graduates are sometimes forced to find positions out of their field.

5. Use of Information on Labor Market — **Average Score** 4.4 (22/5)

III I I

5	4	3	2	1

The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program.

The faculty and administrators do not use labor market data in planning or evaluating the program.

Approved by the Academic Senate, June 20, 1996

6. **Use of Profession/Industry Standards** Average Score 4.5 (23/5)

5	4.5	4	3	2	1

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. **Use of Student Follow-up Information** Average Score 4.6 (23/5)

5	4	3	2	1

Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

Student follow-up information has not been collected for use in evaluating this program.

8. **Relevance of Supportive Courses** Average Score 4.6 (23/5)

5	4	3	2	1

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Supportive course content reflects no planned approach to meeting needs of students in this program

9. **Qualifications of Administrators and Supervisors** Average Score 3.6 (18/5)

5	4	3	2	1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. **Instructional Staffing** Average Score 4.8 (24/5)

5	4	3	2	1

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. **Facilities** Average Score 4.6 (23/5)

5	4	3	2	1

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.

Approved by the Academic Senate, June 20, 1996

12. Scheduling of Instructional Facilities Average Score 4.6 (23/5)

5	4	3	2	1
///	//			

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. Equipment Average Score 4.2 (21/5)

5	4	3	2	1
//	//	/		

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. Adaption of Instruction Average Score 4.3 (21.5/5)

5	4.5	4	3	2	1
/	/	///			

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. Adequate and Availability of Instructional Materials and Supplies Average Score 3.7 (18/5)

5	4.5	4	3	2	1
	/	//	//		

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

FAC 1

Appendix H

PROGRAM REVIEW PANEL EVALUATION

Program: Automotive + Heavy Equipment Management (AHM)

Instructions: Circle the number which most closely describes t he program you are evaluating.

1. Student Perception of Instruction **Average Score _____**

5	(4)	3	2	1
Currently enrolled students rate instructional effectiveness as extremely high.				Currently enrolled students rate the instructional effectiveness as below average.

2. Student Satisfaction with Program **Average Score _____**

5	(4.5)	4	3	2	1
Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.					Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. Advisory Committee Perceptions of Program **Average Score _____**

5	(4.5)	4	3	2	1
Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.					Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. Demand for Graduates **Average Score _____**

(5)	4	3	2	1
Graduates easily find employment in field.				Graduates are sometimes forced to find positions out of their field.

5. Use of Information on Labor Market **Average Score _____**

(5)	4	3	2	1
The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program.				The faculty and administrators do not use labor market data in planning or evaluating the program.

Information from MIS, but we do keep in touch through industry contacts and our advisory committee.

Approved by the Academic Senate, June 20, 1996

6. **Use of Profession/Industry Standards** **Average Score** _____

5	4	3	2	1

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. **Use of Student Follow-up Information** **Average Score** _____

5	4	3	2	1

Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

Student follow-up information has not been collected for use in evaluating this program.

8. **Relevance of Supportive Courses** **Average Score** _____

5	4	3	2	1

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Supportive course content reflects no planned approach to meeting needs of students in this program.

9. **Qualifications of Administrators and Supervisors** **Average Score** _____

5	4	3	2	1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. **Instructional Staffing** **Average Score** _____

5	4	3	2	1

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. **Facilities** **Average Score** _____

5	4	3	2	1

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.

FAC 1

12. Scheduling of Instructional Facilities **Average Score _____**

5	4	3	2	1

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. Equipment **Average Score _____**

5	4	3	2	1

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. Adaption of Instruction **Average Score _____**

5	4	3	2	1

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. Adequate and Availability of Instructional Materials and Supplies **Average Score _____**

5	4	3	2	1

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

Appendix H

PROGRAM REVIEW PANEL EVALUATION

Program: Automotive Measurement

Instructions: Circle the number which most closely describes t he program you are evaluating.

1. Student Perception of Instruction **Average Score** 5

5	4	3	2	1
Currently enrolled students rate instructional effectiveness as extremely high.				Currently enrolled students rate the instructional effectiveness as below average.

2. Student Satisfaction with Program **Average Score** 5

5	4	3	2	1
Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.				Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. Advisory Committee Perceptions of Program **Average Score** 5

5	4	3	2	1
Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.				Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. Demand for Graduates **Average Score** 4

5	4	3	2	1
Graduates easily find employment in field.				Graduates are sometimes forced to find positions out of their field.

5. Use of Information on Labor Market **Average Score** 4

5	4	3	2	1
The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program.				The faculty and administrators do not use labor market data in planning or evaluating the program.

Approved by the Academic Senate, June 20, 1996

6. Use of Profession/Industry Standards Average Score 4

5	4	3	2	1

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. Use of Student Follow-up Information Average Score 5

5	4	3	2	1

Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

Student follow-up information has not been collected for use in evaluating this program.

8. Relevance of Supportive Courses Average Score 5

5	4	3	2	1

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Supportive course content reflects no planned approach to meeting needs of students in this program.

9. Qualifications of Administrators and Supervisors Average Score 4

5	4	3	2	1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. Instructional Staffing Average Score 5

5	4	3	2	1

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. Facilities Average Score 5

5	4	3	2	1

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.

12. **Scheduling of Instructional Facilities** Average Score 5

5	4	3	2	1

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. **Equipment** Average Score 5

5	4	3	2	1

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. **Adaption of Instruction** Average Score 5

5	4	3	2	1

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. **Adequate and Availability of Instructional Materials and Supplies** Average Score 4

5	4	3	2	1

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

Appendix H

PROGRAM REVIEW PANEL EVALUATION

Program: Automotive & Heavy Equipment Management (AHM)

Instructions: Circle the number which most closely describes t he program you are evaluating.

1. Student Perception of Instruction **Average Score _____**

5	(4)	3	2	1
Currently enrolled students rate instructional effectiveness as extremely high.				Currently enrolled students rate the instructional effectiveness as below average.

2. Student Satisfaction with Program **Average Score _____**

5	(4.5)	4	3	2	1
Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.					Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. Advisory Committee Perceptions of Program **Average Score _____**

5	(4.5)	4	3	2	1
Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.					Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. Demand for Graduates **Average Score _____**

(5)	4	3	2	1
Graduates easily find employment in field.				Graduates are sometimes forced to find positions out of their field.

5. Use of Information on Labor Market **Average Score _____**

(5)	4	3	2	1
The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program.				The faculty and administrators do not use labor market data in planning or evaluating the program.

INDUSTRY CONTACTS ARE USED EXCLUSIVELY & HEAVILY, AS MOIS DATA NOT READILY AVAILABLE.

Approved by the Academic Senate, June 20, 1996

6. **Use of Profession/Industry Standards** Average Score _____

5 (4.5) 4 3 2 1

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. **Use of Student Follow-up Information** Average Score _____

(5) 4 3 2 1

Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

Student follow-up information has not been collected for use in evaluating this program.

8. **Relevance of Supportive Courses** Average Score _____

(5) 4 3 2 1

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Supportive course content reflects no planned approach to meeting needs of students in this program.

9. **Qualifications of Administrators and Supervisors** Average Score _____

5 4 (3) 2 1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. **Instructional Staffing** Average Score _____

5 (4) 3 2 1

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. **Facilities** Average Score _____

5 (4) ~~3~~ 2 1

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.

FAC 5

12. Scheduling of Instructional Facilities **Average Score _____**

5	(4)	3	2	1

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. Equipment **Average Score _____**

5	4	(3)	2	1

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. Adaption of Instruction **Average Score _____**

5	(4.5)	4	3	2	1

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. Adequate and Availability of Instructional Materials and Supplies **Average Score _____**

5	4	(3)	2	1

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

FAC 4

Appendix H

PROGRAM REVIEW PANEL EVALUATION

Program: AHEM

Instructions: Circle the number which most closely describes t he program you are evaluating.

1. Student Perception of Instruction — **Average Score** 4.5

5	X	4	3	2	1

Currently enrolled students rate instructional effectiveness as extremely high.

Currently enrolled students rate the instructional effectiveness as below average.

2. Student Satisfaction with Program — **Average Score** 4.5

5	X	4	3	2	1

Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.

Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. Advisory Committee Perceptions of Program — **Average Score** 5.0

(5)	4	3	2	1

Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.

Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. Demand for Graduates — **Average Score** 5.0

(5)	4	3	2	1

Graduates easily find employment in field.

Graduates are sometimes forced to find positions out of their field.

5. Use of Information on Labor Market — **Average Score** 3.0

5	4	(3)	2	1

The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program.

The faculty and administrators do not use labor market data in planning or evaluating the program.

FAC 4

6. Use of Profession/Industry Standards Average Score 5.0

5	4	3	2	1

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. Use of Student Follow-up Information Average Score 5.0

5	4	3	2	1

Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

Student follow-up information has not been collected for use in evaluating this program.

8. Relevance of Supportive Courses Average Score 5.0

5	4	3	2	1

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Supportive course content reflects no planned approach to meeting needs of students in this program.

9. Qualifications of Administrators and Supervisors Average Score 4.0

5	4	3	2	1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. Instructional Staffing Average Score 5.0

5	4	3	2	1

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. Facilities Average Score 5.0

5	4	3	2	1

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.

FAC 7

12. Scheduling of Instructional Facilities **Average Score** 4.0

5	(4)	3	2	1

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. Equipment **Average Score** _____

5	(4)	3	2	1

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. Adaption of Instruction **Average Score** _____

5	(4)	3	2	1

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. Adequate and Availability of Instructional Materials and Supplies **Average Score** 4.5

5	(4)	3	2	1

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

FAC 5

Appendix H

PROGRAM REVIEW PANEL EVALUATION

Program: Automotive & Heavy Equipment Mgmt.

Instructions: Circle the number which most closely describes t he program you are evaluating.

1. Student Perception of Instruction **Average Score** _____

5	(4)	3	2	1
Currently enrolled students rate instructional effectiveness as extremely high.				Currently enrolled students rate the instructional effectiveness as below average.

2. Student Satisfaction with Program **Average Score** _____

(5)	4	3	2	1
Currently enrolled students are very satisfied with the program faculty, equipment, facilities, and curriculum.				Currently enrolled students are not satisfied with program faculty, equipment, facilities, or curriculum.

3. Advisory Committee Perceptions of Program **Average Score** _____

(5)	4	3	2	1
Advisory committee members perceive the program curriculum, facilities, and equipment to be of the highest quality.				Advisory committee members perceive the program curriculum, facilities, and equipment needs improvement.

4. Demand for Graduates **Average Score** _____

(5)	4	3	2	1
Graduates easily find employment in field.				Graduates are sometimes forced to find positions out of their field.

5. Use of Information on Labor Market **Average Score** _____

(5)	4	3	2	1
The faculty and administrators use current data on labor market needs and emerging trends in job openings to systematically develop and evaluate the program. yes, using industry contacts not, other than advisory Board				The faculty and administrators do not use labor market data in planning or evaluating the program.

Approved by the Academic Senate, June 20, 1996

FAC 5

6. **Use of Profession/Industry Standards** Average Score _____

5	4	3	2	1

Profession/industry standards (such as licensing, certification, accreditation) are consistently used in planning and evaluating this program and content of its courses.

Little or no recognition is given to specific profession/industry standards in planning and evaluating this program.

7. **Use of Student Follow-up Information** Average Score _____

5	4	3	2	1

yes Current follow-up data on completers and leavers are consistently and systematically used in evaluating this program.

no, they just disappear

Student follow-up information has not been collected for use in evaluating this program.

8. **Relevance of Supportive Courses** Average Score _____

5	4	3	2	1

Applicable supportive courses are closely coordinated with this program and are kept relevant to program goals and current to the needs of students.

Professional Selling yes/no ? MKTG 231

Supportive course content reflects no planned approach to meeting needs of students in this program.

9. **Qualifications of Administrators and Supervisors** Average Score _____

5	4	3	2	1

All persons responsible for directing and coordinating this program demonstrate a high level of administrative ability.

Persons responsible for directing and coordinating this program have little administrative training and experience.

10. **Instructional Staffing** Average Score _____

5	4	3	2	1

Instructional staffing for this program is sufficient to permit optimum program effectiveness.

Staffing is inadequate to meet the needs of this program effectively.

11. **Facilities** Average Score _____

5	4	3	2	1

Present facilities are sufficient to support a high quality program.

Present facilities are a major problem for program quality.

FAC 5

12. Scheduling of Instructional Facilities **Average Score** _____

5	4	3	2	1

Scheduling of facilities and equipment for this program is planned to maximize use and be consistent with quality instruction.

Facilities and equipment for this are significantly under-or-over scheduled.

13. Equipment **Average Score** _____

5	4	3	2	1

Present equipment is sufficient to support a high quality program.

Present equipment is not adequate and represents a threat to program quality.

14. Adaption of Instruction **Average Score** _____

5	4	3	2	1

Instruction in all courses required for this program recognizes and responds to individual student interests, learning styles, skills, and abilities through a variety of instructional methods (such as, small group or individualized instruction, laboratory or "hands on" experiences, credit by examination).

Instructional approaches in this program do no consider individual student differences.

15. Adequate and Availability of Instructional Materials and Supplies **Average Score** _____

5	4	3	2	1

Faculty rate that the instructional materials and supplies as being readily available and in sufficient quantity to support quality instruction.

Faculty rate that the instructional materials are limited in amount, generally outdated, and lack relevance to program and student needs.

$16K budget for 3+ FT Faculty does not allow adequate opportunity to keep current w/ industry

SECTION 6

ADVISORY COMMITTEE PERCEPTIONS

ADVISORY COMMITTEE

An AHM program advisory meeting was held Tuesday March 28, 2000. The following is a list of those who attended. (For a copy of the meeting agenda as well as copies of the business cards of those who attended, see the end of this section.)

From Industry:

Jim Carbary, Technical Advsor, DaimlerChrysler (AHM Grad)
Rick Elliott, Dealer Operations Manager, Ford Motor Company (AHM Grad)
Neal Hentschl, Manager, Huron County Road Commission (AHM GRAD)
Greg Jankowski, Dealer Development Manager, DaimlerChrysler (AHM GRAD)
Glenn Joseph, Account Manager, MPC (AHM Grad)
Brian Kuznicki, Customer Assistance Specialist, Cummins Engine Company (AHM GRAD)
Joe Wagner, Customer Relations Assistant Zone Manager, American Honda
Tammy Wise, University of Toyota, Toyota Motor Sales
Monte Zinn, President/Dealer, Monte Zinn Chevrolet, Dodge, Toyota, Hyundai, Mitsubishi, and KIA

From Ferris:

Gary Lutz, AHM Senior
Shaun Yzquierdo, AHM Junior
Greg Denny, AHM Faculty Member
Dan VanderWoude, AHM Faculty Member
Mike Ropele, AHM Faculty Member & Program Coordinator (AHM Grad)
Greg Key, Auto Service & Auto Body Program Coordinator
Chris Roe, Department Secretary

A. Meeting Minutes

From 9:00 -11:30 A.M., the industry representatives on the committee met privately with AHM students in Auto Center 105. (Note: AHM classes were cancelled for the day so students could participate in the meeting.) The goal of the session was to provide students with a direct link to the industry committee members where they could ask and say whatever they wanted, without fear of retaliation from the faculty, staff or administration. Two students (Lutz and Yzquierdo mentioned above) moderated the session.

At noon, the industry representatives on the committee along with the two student moderators, the faculty, the Department Head, and Department Secretary had lunch together at the Holiday Inn. Following lunch, Dean

Waldheim stopped by to meet and greet the guests before the meeting was officially kicked off at 1:00 P.M.

The afternoon general meeting included an update on the College of Technology's restructuring, on program enrollment, placement, starting wages, curriculum related issues, and new industry trends.

A lengthy discussion was held regarding curriculum revision, an AHM minor, a new (0+4) AHM degree option, and a new "Auto Engineering Technology" degree proposal. The committee was 100% supportive of the proposed curriculum changes to the current AHM program, as well as the AHM Minor and new (0+4) option.

The committee did however express concern for the newly proposed "Auto Engineering Technology" program. Committee members were primarily concerned about where those grads would go upon graduation and also how the new program would affect AHM's enrollment. Greg Key, the driving force behind the new program, provided his perspective on the new degree.

B. Student Meeting Feedback

The industry representatives then provided feedback from the morning student session. The items they discussed or suggested are the following:

1. Some students had concerns about basic computer skills and their ability to succeed in industry. Students felt comfortable with word-processing, e-mail and the internet, but not so much with PowerPoint and Excel. Industry representatives suggested interactive tutorials as a means to assist students.
2. Students asked the industry representatives about "Microsoft Access" and its importance in industry. The representatives had mixed comments and uses for the software. AHM faculty agreed to review the situation more closely.
3. Students asked that we have Office 2000 installed on our Computer Lab PCs, since most students with new PCs were already using it. AHM faculty agreed to look into the possibility of an upgrade. (Office 2000 was installed - summer 2000.)
4. Students expressed an interest in more team-project related activities. Currently AHEM 402 has a team term project. AHM faculty agreed to evaluate the situation for other ways of integrating team activities.
5. Students expressed a desire for more guest speakers in AHM classes. AHM faculty agreed to improve in this area where appropriate.
6. Students expressed concerns about out-of-state internships and related expenses. Industry representatives felt AHM's policy was realistic and advised the students accordingly.

C. Advisory Committee Surveys

Industry representatives on the committee, were then surveyed accordingly (alumni surveys to alumni, employer surveys to employers, and two surveys if they were both an alum and an employer).

Employer Survey Results:

Five out of seven surveyed listed "Interpersonal Communication" skills as the most desired for their company needs. Of the other two, one said "They're all important" and the other listed four areas as all being equally as important - "Technical Knowledge, Communication Skills, Computer Use Skills, and Teamwork".

When asked for areas of preparedness you wish the graduate(s) possessed, they said:
"More real world experience"
"More interest in the retail side of the industry"
"More business management"
"Increased computer skills"
"Increased leadership skills"
(2) LEFT BLANK

Alumni Survey Results:

They were very satisfied with the program, job placement, and their overall career success. They felt the program's communication, technical, and business management balance and focus were appropriate. Some felt that even though the program helped them significantly improve/develop their written communication skills, that they still could of used more help in this area.

AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM)

Tuesday March 28, 2000

8:15 A.M. COFFEE AND ROLLS - Automotive Center Conference Room (A/C - 103)

9:00 A.M. STUDENT MEETING - (Advisory Committee and AHM students only) (A/C - 105)

11:00 A.M. STUDENT/ADVISORY COMMITTEE SOCIAL TIME - (A/C - 105)

12:00 A.M. LUNCH - Holiday Inn

1:00 P.M. GENERAL MEETING - Holiday Inn
(There will be a break at approximately 2:30 P.M.)

AHM Program Update
- -Faculty and Staff
- -Enrollment
- -Placement/Starting Wages
- -Curriculum

New Challenges/New Opportunities

Reaction to Student Meeting

Discussion of Emerging Trends and Recommendations for AHM Program Enhancement

4:00 P.M. Adjourn

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SECTION 7

LABOR MARKET ANALYSIS

INTRODUCTION

The Automotive and Heavy Equipment Management (AHM) program has, since its inception filled a very specific employment niche in the motor vehicle industry. In the beginning, the program focused heavily on the retail/dealership aspect of the business. This emphasis shifted over the years to the wholesale side of the industry and the relationship between the manufacturer and the retailer/dealer. Currently, the largest percent (60%+) of the graduates find employment with manufacturers and suppliers in the industry. The unique nature of the entry-level positions within these companies makes it difficult to obtain specific hard data on the future of this labor market. Data is available on the future of retail, vehicle manufacturing, wholesale representation, and parts manufacturing sections of the industry. AHM program graduates are employed in each one of these industries as well as others.

The overall job market has shown remarkable stability and growth over the past decade. By the end of 1999, the U.S. economy has shown 106 months of uninterrupted recovery from the recession of 1990-91. In that same year, the total number of non-farm employment rose by 2.7 million to 129.6 million. The unemployment rate at the end of 1999 was 4.1 percent, a 30-year low. Motor vehicle employment is at its highest since 1978. At the end of 1998 it stood at 1,005,000 employees, according to the American Automobile Manufacturers Association (AAMA).

The increase in the number of foreign-owned manufacturing plants in the United States has had a profound effect on the import of automobiles into this country. In 1987, the automobiles imported into the U.S. car market stood at 31.1%. At the end of 1998, the import share of the market was 15.5%. Another positive impact has been felt by the parts manufacturing segment of the industry as foreign-owned companies purchase an ever-increasing number of domestically produced components.

A. Employment Outlook: Retail Motor Vehicle Dealers

As stated previously, the majority of AHM graduates used to enter the retail market. This is not the case today. The retail or dealership network of the motor vehicle industry is in a state of flux at this time. The Internet, as well as increased competition, has forced a complacent industry to rethink the way that they do business. A new vehicle dealership without a website is the exception rather than the norm.

Expectations of the new vehicle customer as well as the manufacturer have placed increasing pressure on the retailer to exceed customer satisfaction standards. Most jobs in administration, sales, service, parts, finance and insurance departments of a typical dealership offer above average earnings, but

usually require only 2 years or less of post-secondary training. Moreover, a current trend in the industry is the consolidation of ownership into large dealer groups. This trend has had an important impact on the employment outlook as well as the number of actual dealership locations and job opportunities.

Employment growth is expected to be average but will continue to be very sensitive to economic downturns. The brightest opportunity for the years 1998-2008 is in the area of marketing and in the supervision of sales operations, not sales people. The Bureau of Labor Statistics (BLS) predicts a 26.0% increase in this occupation category.

B. Employment Outlook: New Motor Vehicle Manufacturing

The intricate series of systems that make up motor vehicles today requires a complex organization of personnel who interact with each other to achieve a final product. These organizations must evolve continuously to maximize efficiency in a global marketplace. Having the right mix of technical knowledge and interpersonal communication skills is crucial to success in this industry.

Nearly one third of all of new motor vehicle manufacturing jobs are located right here in Michigan. This presents a unique challenge to Ferris State University's Automotive and Heavy Equipment Management program. The industry is known for having very large corporations dominating the manufacturing segment of business in Michigan. Salaries are very high when compared to other industries. The employment outlook for the manufacturing worker is expected to decline over the next ten years as automation displaces workers. The brightest opportunity in this industry is for graduates with a pure four-year engineering degree with a predicted increase of 10.2% (BLS).

Compared to other industries, workers in motor vehicle manufacturing had a median age of 40.8 in 1998, as all other industries reported a median age of 39.1. Even though employment declines are predicted for manufacturing workers, over one-third of the current work force is over 44 years of age and in a position to retire in the future. Some, but not all, of the workers who retire or transfer to different employment will need to be replaced.

C. Employment Outlook: Manufacturer's Representatives (Wholesale)

A manufacturer's success depends on the attention given to their retail distribution network. Many manufacturers accomplish this through regular contact with the dealer by representatives in sales, parts, and service. Although employers place a great deal of importance in educational background, many hire individuals with experience in the related discipline and no college degree. However, the lack of a degree does limit future advancement.

Manufacturer representatives held about 1.5 million jobs in 1998. Three out of four worked for distributors of machinery, equipment, motor vehicles and parts. Due to the diversity of products, employment opportunities in these areas remain strong for now and in the foreseeable future. This industry is becoming increasingly automated and will require individuals with communication skills who are technically competent as well.

D. Employment Outlook: Parts Manufacturing

Parts suppliers to new vehicle manufacturers employ a significant number of program graduates. The number of people employed in the parts manufacturing industry has exceeded the number employed in new motor vehicle assembly since 1987. The number of employees in the parts industry has grown every year except two, while the number of employees in the new vehicle assembly industry has increased only 8 out of 16. In 1998 there were 546,800 workers in the parts industry while there were 341,800 in the new vehicle assembly industry. The automotive parts industry plays an important role in the economy of the United States. For every one dollar that vehicle manufacturers spend on parts, $2.50 in additional expenditures and income is generated through our economy.

The number of foreign-owned manufacturers building vehicles here has also increased the demand for U.S. built components. The increasing globalization of the U.S. motor vehicle industry has driven U.S. based parts manufacturers to look outside of our borders for business. Stringent requirements by U.S. automakers have cut into profit levels of parts manufacturers. Parts manufacturing industries have responded by cutting costs and refining their operations.

In 1997, three mid-west states employed 49% of all parts manufacturing employees. Michigan led with 24%, Ohio with 13%, and Indiana with 12%. Of all the industries noted previously, the parts manufacturing segment appears to be an area of great opportunity for AHM program graduates.

Sources:

United States Department of Labor, Bureau of Labor Statistics
http://stats.bls.gov

United States Department of Treasury
http://www.itds.treas.gov

The Auto Channel
http://www.theautochannel.com

SECTION 8

FACILITIES & EQUIPMENT EVALUATION

FACILITIES AND EQUIPMENT

The AHM program has been housed in the Automotive Center (708 Campus Drive) since June of 1990. It is a large "E-shaped" single story building built in 1956 and remodeled in 1988 (see attached floor plan). In addition to the AHM program, the Automotive Service and Automotive Body associate degree programs are also based there.

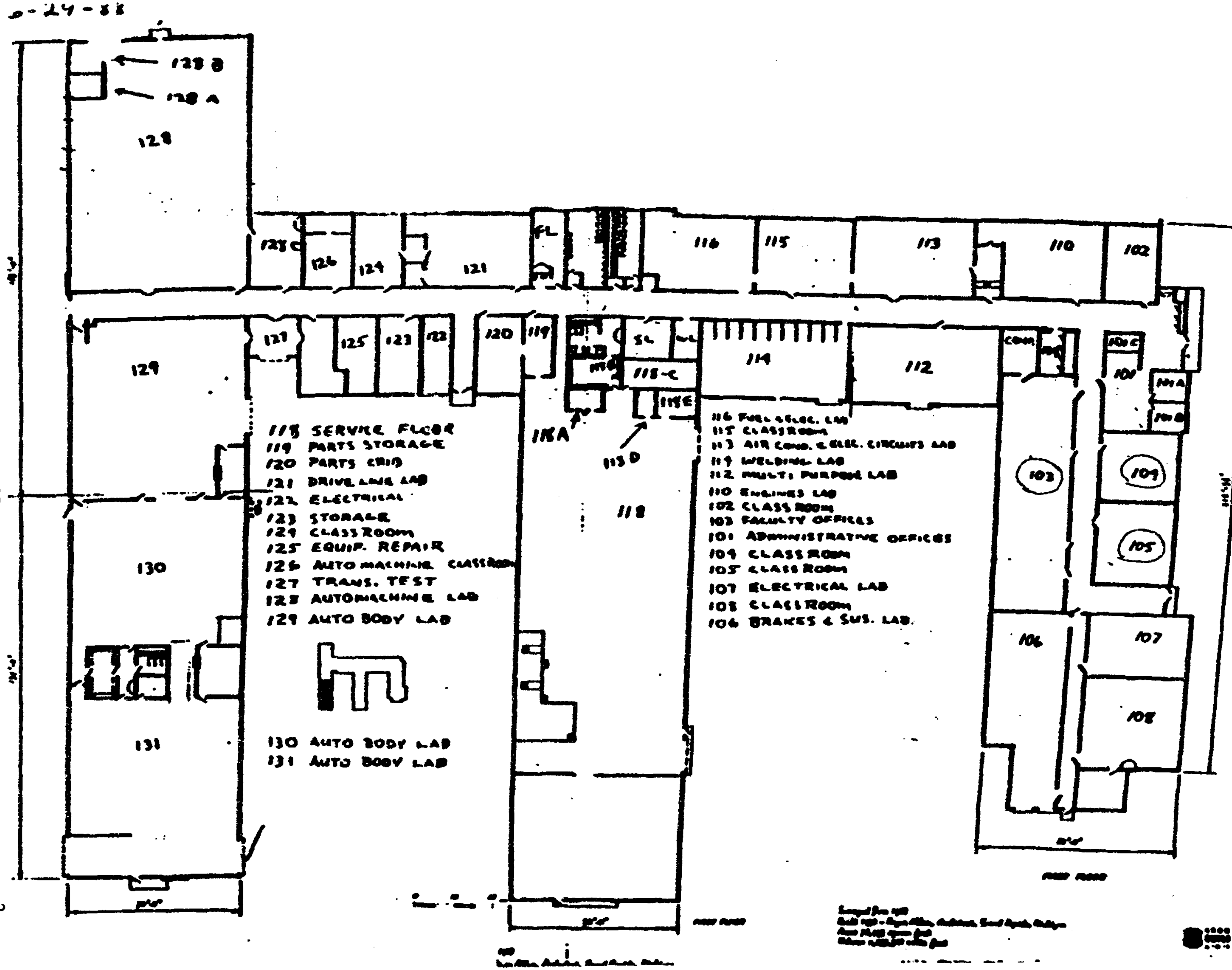
The AHM program primarily uses rooms 104 and 105 for classrooms and room 103 for faculty offices and a conference room. Rooms 104 and 105 are both carpeted and are also the only two classrooms air conditioned in the entire building. Room 104 is equipped with 14 PCs (10 purchased - summer 1998, 4 - summer 2000), 1 scanner, a system printer and recessed lighting. Room 104 has multiple uses, as it serves as the AHM Computer Lab, AHM Resource Room, as well as a classroom. The room is staffed by workstudy students on evenings and weekends and is open for student use. Each PC is attached to the Ferris network and is equipped with access to the Internet, E-mail, Windows 98, and Office 2000. Room 105 is the main AHM classroom. It can seat up to 25 students and is equipped with a portable P/C workstation, a TV/VCR cart, as well as newly installed dimmable recessed lighting.

In addition to the equipment mentioned, the AHM program also has a video camera and tripod that are used to record student presentations, two digital, four polaroid and five 35 mm cameras that are used to support student class projects, as well as two laptop PCs and two projection units that are used by faculty on campus as well as at the Macomb location for classroom material preparation and delivery.

The faculty office (room 103) is a large open area that houses all AHM, Auto Service, and Auto Body faculty. Each faculty member has their own cubicle and PC, but share a common system printer. AHM faculty members also have two scanners they share for curriculum development purposes.

In fall 1993, Toyota Motor Sales donated a 1994 Toyota Corolla to the AHM program for use when making student internship visits, for recruiting, and for faculty business travel.

In 1998, after hearing about AHM's new Automotive Culture/History class, Mr. George Byam, owner of Terrberry Fine Emblem Jewelry of Grand Rapids, Michigan, donated a 90% restored 1946 Model CJ-2A Willys Jeep to the AHM program. The Jeep has since been completed and is on display in the Auto Center Lobby. (See the following pages for more on the Jeep.)



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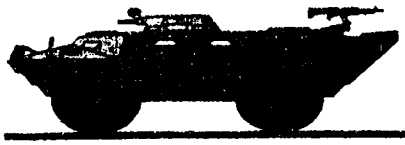
119 PARTS STORAGE
120 PARTS CRIB
121 DRIVE LINE LAB
122 ELECTRICAL
123 STORAGE
124 CLASSROOM
125 EQUIP. REPAIR
126 AUTO MACHINE CLASSROOM
127 TRANS. TEST
128 AUTOMACHINE LAB
129 AUTO BODY LAB
130 AUTO BODY LAB
131 AUTO BODY LAB
116 FUEL & ELEC. LAB
115 CLASSROOM
113 AIR COND. & ELEC. CIRCUITS LAB
114 WELDING LAB
112 MULTI PURPOSE LAB
110 ENGINES LAB
102 CLASSROOM
103 FACULTY OFFICES
101 ADMINISTRATIVE OFFICES
104 CLASSROOM
105 CLASSROOM
107 ELECTRICAL LAB
108 CLASSROOM
106 BRAKES & SUS. LAB



David W. Uhrig – Military Vehicle Broker and Appraisal Services

MVPA Member 120C

P.O. Box 726-A
Chillicothe, Ohio 45601

George Byam
2033 Oak Industrial NE
Grand Rapids, MI 49505
July 21, 1998

RE: Opinion letter of value for a 1946 Willys Jeep Model CJ-2A Serial No. 11375 Michigan Title No. 248B1680184. Photo and Title Copy attached.

I have personnaly examined the above mentioned vehicle for appraisal purposes. The vehicle is a perfect example of an early CJ-2A being one of the first 1400 purchased. Based on current offerings and recent sales I put the fair market value at $32,500.

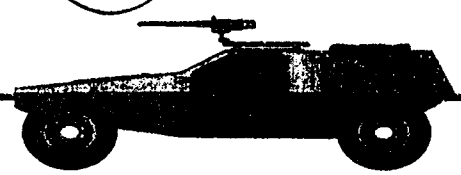
I certify that, to the best of my knowledge and belief, the statements of fact contained in this report are true and correct. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the property that is the subject of this report and no personal interest or bias with respect to the parties involved. My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.

The above price is based both on my experience over the last twenty (20) years selling military jeeps and on current prices both advertised and paid.

Sincerely,

David W. Uhrig



Phone & FAX: (740) 772-1540 ***E-Mail: mvs@bright.net***
Web Site: http://brightnet.horizontel.com/mvs

Interesting Trades Considered

SECTION 9

CURRICULUM EVALUATION

INTRODUCTION

Ferris State University's AHM program started in 1971, graduating its first class in 1973. The program has graduated more than 1,600 graduates over the past 27 years. It is a third and fourth year program, with graduates receiving a Bachelor of Science degree. Graduates of factory co-op programs such as GM's ASEP, Ford's ASSET, Chrysler's CAP, or Toyota's T-Ten programs are eligible to enroll in the program.

The program started out as Automotive and Heavy Equipment Technology (AHT). As trends in the industry developed, the program became more management oriented. In 1987 the name was changed to Automotive and Heavy Equipment Management (AHM), to more closely relate to the current curriculum.

In 1990 a dealership computer class was instituted to give students hands-on experience with dealership operating systems. Many graduates were being placed in dealerships at that time. Also, computers were the industry 'buzzword' and this was one way to incorporate computers into the AHM curriculum.

In 1998 the dealership computer class was dropped, for a couple reasons. The placement of graduates had shifted away from dealerships toward a more corporate setting. More graduates were now going to the Big Three and the Imports, as direct corporate hires. This class then became obsolete, except for a minority of graduates going to work for dealerships. It was also very expensive to maintain a mainframe system for one class (two sections) a year. Another reason became quite obvious to the AHM faculty; mainframe computer systems were fast becoming obsolete, being replaced by faster and faster PC Network systems. More and more PC software programs became available, which our employers expected new hires to have familiarity with, for example:

- Word processing
- Spreadsheets
- Databases
- Presentation software
- E-mail programs
- Web / Internet type software

It became apparent that something had to be removed to make room for this fast growing new technology, vital for success.

We added the three credit hours from the dealership computer class, now dropped, to three separate AHM classes, at the same time incorporating the necessary PC skills into the entire curriculum.

The AHM program is currently being taught in Southeast Michigan. This facet of the AHM program started in fall, 1996. We are on our second group of students

and expect to start a third group in winter, 2001. The AHM faculty make the weekly trip to Detroit and teach the same courses they teach on campus.

FACULTY

There are three full time faculty members in the AHM program, Michael Ropele, Associate Professor and Program Coordinator the past five years, Gregory Denny, Professor and Daniel VanderWoude, Assistant Professor. Their resumes are available for review in the appendix, section 14.

Two adjunct faculty have also taught classes the past five years. Tom Brownell, Professor, from the Language and Literature department has taught two AHM classes and has developed a third class. Automotive History and Culture, AHEM 360 has been in the curriculum three years and AHM students can take it for a directed elective.

John Gahrs, Professor Emeriti, has taught the materials class, AHEM 450, the past two years and is doing so currently. John's background is Auto Service Technology, retiring in 1998.

Both professors bring a wealth of information to their classrooms, specializing in the areas taught. This is a very positive experience for the students as both have natural ties to the AHM program.

FUTURE DIRECTION OF THE PROGRAM

The AHM faculty are currently in the process of modifying the program, to better serve our growing industry, in three basic areas:

- Minor Program Revision: AHM 402, Management of Variable Operations and AHM 404, Customer Relations and Warranty Procedures will each become four semester credit hours to accommodate newer PC skills unique to the Automotive industry, newer negotiating techniques, and innovative activities performed by field personnel working for the major automotive manufacturers.

- Minor for College of Business students: A variety of College of Business majors could pursue career opportunities in the automotive and heavy equipment industry by obtaining a minor in AHM.

- New four-year, less technical BS degree program. Existing classes, for the most part, would be used, creating a graduate

with stronger communication, management, and marketing skills, while sacrificing very little hands-on technical training. The hands-on service floor training would be replaced with more management course work. This program will attract a different type of student, one more academically ready for college classes. The expense of tools and the 'stigma' of being a 'mechanic' will be reduced, resulting in more female and minorities enrolling in the program.

These proposals have been discussed at our advisory meetings and the advisory board has approved these changes. The industry is very serious about hiring minorities and females, as they are committed to the concept of diversity in the workplace.

These proposals help all parties concerned; the industry has a larger pool of candidates, the students have more job opportunities and both Ferris and the AHM program grow, without hurting other programs.

DOCUMENTATION

Program brochures and check sheets for on-campus and Southeast Michigan locations, along with course outlines and syllabi can be found at the end of this section.

CURRICULUM EVALUATION

The AHM curriculum, for this report, is evaluated four ways:

- In relation to Ferris State University's mission statement
- By AHM's advisory board feedback
- By alumni survey results
- By employer survey results

The Ferris AHM program is only one of six in the nation developing technical managers for the automotive and heavy equipment industry. It is unique in the state of Michigan, being the only program of its kind. Combining technical AND professional education into one program provides many avenues for innovative teaching. Students must interview industry personnel, bringing that information back to the class as a PowerPoint presentation, which is taped, then evaluated by the instructor, peers, and finally the presenter themselves. This is just one example of innovative teaching activities that makes this program so viable in today's automotive and heavy equipment industry. The AHM program at Ferris State University not only meets Ferris' mission statement, it exceeds it!

The advisory board meets every spring and many discussions have taken place concerning curriculum. We also survey the advisory board every year. Without any true certification agency available we must rely on our industry contacts. The response to survey questions and discussions usually revolve around the same basic areas:

- Communication skills
- Customer relations
- Strong technical skills
- PC skills

The advisory board rates the curriculum very high, matching skills necessary to succeed verses education received. Most feel that the technical training is very good, exactly what is needed. Some even feel that the Ferris State AHM graduate has better technical skills than what is necessary to be successful.

The advisory board has approved the program modifications mentioned earlier. There are positions available for the business major, who has strong AHM type skills, and knows the industry because of their AHM education. In some job opportunities the degree of technical expertise can actually be reduced, opening the door for a less technical AHM four-year degree. Overall, the advisory board agrees that the AHM curriculum meets the needs of their graduates.

The AHM alumni survey went very well, with a response rate higher than expected. The majority of the alumni rated the program very high. The curriculum was rated highly, especially in areas such as communication skills. The graduates' satisfaction level was very high in both written and oral communications. It is interesting to note the correlation between the graduates' high satisfaction levels compared to what they think their employers believe as the 'most desired skills.' This is especially true in the area of communication skills. Based on the alumni survey the AHM curriculum meets the graduates' needs.

The employer survey results convey the same message as the other survey results; the AHM curriculum meets the needs of the graduates of the program. The most desired skills listed are interpersonal skills and technical skills. This indicates the two-year technical curriculum complements the four-year AHM curriculum.

Bachelor of Science • College of Technology

The AHM program is a third and fourth year program that concentrates on managerial skills required by the automotive and heavy equipment industry.

Along with specific automotive and heavy equipment management abilities, students have the opportunity to develop communication and other related skills through oral presentations and written projects that are required in many courses. In addition, an on-the-job management internship is an important part of the program.

All areas of the AHM program are supported by a computer laboratory that features the very latest in industry hardware and software.

Instruction is provided in the areas of management, sales, marketing, distribution, customer relations, warranty administration, franchising, dealership operations, accounting, financing and related computer skills.

Why Choose Automotive and Heavy Equipment Management (AHM)?

The automotive and heavy equipment industry needs managers and representatives with up-to-date technical, managerial and communication skills.

Manufacturers need service, sales, parts and customer relations representatives. Positions also exist in dealerships and repair centers and include service management, parts management, sales, leasing and general management. In addition, there are other management positions such as aftermarket managers, fleet managers, technical writers, trainers and government agency managers.

Graduates from the AHM program are among the highest-paid and most sought-after graduates of Ferris. Because every global automotive manufacturer doing business in America requires managers with the precise skills offered by this program, many graduates are faced with the difficult decision of choosing from several highly-desirable and lucrative job offers.

The following is a list of required courses:

Courses in Major		Credit Hours
AHEM 301	Automotive Marketing and Distribution 1	4
AHEM 302	Automotive Marketing and Distribution 2	4
AHEM 303	Dealership Accounting	4
AHEM 401	Management of Fixed Operations	4
AHEM 402	Management of Variable Operations	3
AHEM 404	Warranty Procedures and Customer Relations	3
AHEM 450	Automotive Materials	4
AHEM 493	Internship	4
AHEM 499	Seminar/Project	1
Related Courses		
BLAW 301	Legal Environment of Business	3
MGMT 301	Applied Management	3
MKTG 231	Professional Selling	3
MKTG 321	Principles of Marketing	3
Elective:	Directed (See Advisor)	3
General Education		
COMM 121	Fundamentals of Public Speaking	3
ECON 221	Principles of Economics 1	3
ENGL 311	Advanced Technical Writing	3
Electives:	Social Awareness	3
	Cultural Enrichment	6
	Scientific Understanding	4

Minimum semester credit hours required after completion of A.A.S. degree for automotive and heavy equipment management B.S. degree: 68

Admission Requirements

To enter the Automotive and Heavy Equipment Management program, a student must have an associate degree in an automotive or heavy equipment related technical area or equivalent.

Admission is open to the following Ferris automotive programs: automotive technology, heavy equipment technology, auto machine technology and automotive body technology.

Graduates of automotive-related associate degree programs at other colleges are also qualified to transfer into the automotive and heavy equipment management program, including graduates of factory co-op programs such as GM's ASEP, Ford's ASSET, Chrysler's CAP and Toyota's T10 programs.

Advanced standing in the program can be achieved by transfer of credit, armed forces study, College Level Examination Program (CLEP) and course proficiency examinations.

Graduation Requirements

The automotive and heavy equipment management program at Ferris leads to a bachelor of science degree. Graduation requires a minimum 2.0 grade point average in core classes, in the major and overall. Graduates must complete all general education requirements as outlined in the General Education section of the University Catalog. As part of the requirements, students must complete Math 115 or 117.

General Information

Ferris State University is in its second century as one of the nation's premier technical and professional universities. It provides the education to make its graduates immediately employable in their chosen fields.

Approximately 120 educational programs — including doctorates, master's, bachelor's, associate degrees and certificates — are offered through the colleges of Allied Health Sciences, Arts and Sciences, Business, Education, Michigan College of Optometry, Pharmacy and Technology.

A wide variety of student organizations are active on campus, encompassing social, athletic, political, artistic and religious activities and interests.

Arts and cultural events, varsity athletics and an extensive intramural sports program further enrich student life.

The University has on-campus residential facilities for about 40 percent of its nearly 10,000 students.

Founded in 1884 by Michigan educator and statesman Woodbridge N. Ferris, the University has developed a modern, 600-acre campus in Big Rapids, in west central Michigan's vacation-recreation country.

FERRIS STATE UNIVERSITY

Give us a call toll-free at 1-800-4-FERRIS (from MI, IL, IN, OH, WI), or (616) 592-2100. After June 5, call (231) 591-2100.

Visit our homepage <www.ferris.edu>.

Ferris State University is an Equal Opportunity/Affirmative Action employer. The University complies with all applicable laws, including Title IX of the Education Amendments of 1972 and the Rehabilitation Act of 1973, which prohibit discrimination in employment, educational programs or admissions on the basis of age, sex, color, race, national origin, handicap or other prohibited matter. Inquiries or complaints may be addressed to: Affirmative Action and Title IX Compliance Office, McKessy House, 120 E. Cedar St., Big Rapids, MI 49307-2202.

obtained by writing to:

Admissions Office
Ferris State University
420 Oak Street
Big Rapids, MI
49307-2020.

Applications can also be submitted on-line at the FSU web site or call the toll-free phone number, both listed below.

Applications are also available at the offices of Michigan high school and community college counselors.

The completed application must be returned to the Admissions Office well in advance of the semester in which the student expects to enroll.

Financial aid

At Ferris, more than 70 percent of the students receive financial aid, including scholarships, grants-in-aid, long-term loans or part-time employment.

The University annually awards more than $43 million in total student aid.

For more information, write to:

Financial Aid Office
420 Oak Street/PRK 102
Big Rapids, MI 49307-2020
or call **1-800-940-4243** (MI, IL, IN, OH, WI) or **(616) 592-2110**. After June 5, call **(231) 591-2110**.

More information

For more information about this program, write to:
Ferris State University
College of Technology
AHM Program
708 Campus Drive
Big Rapids, MI 49307-2281
or call (616) 592-2361. After June 5, call (231) 591-2361.

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM)
BACHELOR OF SCIENCE DEGREE
FALL SEMESTER
Curriculum Guide Sheet

NAME OF STUDENT _____ STUDENT I.D. _____

Total semester hours required for graduation: 67

NOTE: Meeting requirements for graduation indicated on this sheet is the responsibility of student. Compliance with this agreement will assure the student completion of the program in the time frame indicated. Your advisor must be consulted each semester before registering.

		CREDIT	COMMENTS/GRADE
THIRD YEAR - FALL SEMESTER			
AHEM 301	Automotive Marketing & Distribution 1	4	
AHEM 450	Automotive Materials	4	
ENGL 311	Advanced Technical Writing	3	
COMM 121	Fundamentals of Public Speaking	3	
THIRD YEAR - WINTER SEMESTER			
AHEM 302	Automotive Marketing & Distribution 2	4	
AHEM 303	Dealership Accounting	4	
BLAW 301	Legal Environment of Business	3	
ECON 221	Principles of Economics 1	3	
____ ____	Directed Elective (See Advisor)	3	
FOURTH YEAR - FALL SEMESTER			
AHEM 401	Management of Fixed Operations	4	
MGMT 301	Applied Management	3	
MKTG 321	Principles of Marketing	3	
____ ____	Cultural Enrichment Elective*	3	
____ ____	Social Awareness Elective (300 level or higher)*	3	
FOURTH YEAR - WINTER SEMESTER			
AHEM 402	Management of Variable Operations	3	
AHEM 404	Warranty Procedures and Customer Relations	3	
MKTG 231	Professional Selling	3	
____ ____	Scientific Understanding Elective	3	
____ ____	Cultural Enrichment Elective (200 level or higher)*	3	
INTERNSHIP (MAY BE TAKEN ANY TIME AFTER THIRD YEAR)			
AHEM 493	Internship	4	
AHEM 499	Seminar/Project & Assessment	1	

MATH 115 or MATH 117 proficiency required for graduation (can be demonstrated by exam or course work).

*One General Education elective must meet the Global Consciousness requirement. The Race/Ethnicity and/or Gender requirement must also be met. These two requirements can be met through the Social Awareness and/or the Cultural Enrichment elective groups. See the appropriate University Catalog and your advisor for details.

CURRICULUM REQUIREMENTS
AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM)
BACHELOR OF SCIENCE DEGREE
FALL SEMESTER

ENTRY CRITERIA:

1. Associate Degree in Automotive Body, Automotive Machine Technology, Automotive Service Technology, Heavy Equipment Technology, or an equivalent from another educational institution.
2. A minimum 2.00 honor point average.
3. All coursework for Associate Degree must be completed.

MAJOR			CREDIT HOURS
AHEM	301	Auto. Marketing & Distribution 1	4
AHEM	302	Auto. Marketing & Distribution 2	4
AHEM	303	Dealership Accounting	4
AHEM	401	Management of Fixed Operations	4
AHEM	402	Management of Variable Operations	3
AHEM	404	War. Procedures & Customer Rel.	3
AHEM	450	Automotive Materials	4
AHEM	493	Internship	4
AHEM	499	Seminar/Project & Assessment	1
Directed Electives (choose 1):			
AHEM	360	Automotive Culture	3
ECON	222	Principles of Economics 2	3
FINC	280	Fundamentals of Banking	3
HSET	402	Fleet Management	4
HUMN	216	Introduction to Ethics	3
HUMN	217	Introduction to Logic	3
MGMT	305	Supervision and Leadership	3
MKTG	432	Intermediate Selling	3
MKTG	436	Sales Management	3
STQM	321	Introduction to Statistics	3
Relateds			
BLAW	301	Legal Environment of Business	3
MGMT	301	Applied Management	3
MKTG	231	Professional Selling	3
MKTG	321	Principles of Marketing	3

GENERAL EDUCATION			CREDIT HOURS
Communication Competence			
COMM	121	Fund. of Public Speaking	3
ENGL	311	Advanced Technical Writing	3
Scientific Understanding			
Elective			3-4
Quantitative Skills (Proficiency)			
MATH	115	Intermediate Algebra	3
		OR	
MATH	117	Contemporary Mathematics	4
Cultural Enrichment			
Elective			3
Elective (200 level or higher)			3
Social Awareness			
ECON	221	Principles of Economics 1	3
Elective (300 level or higher)			3

B.S. Degree Minimum General Education Requirements in Semester Hours:

Cultural Enrichment Credits - 9
Communications Credits - 12
Social Awareness Credits - 9
Scientific Understanding Credits - 7-8

5/00

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FERRIS STATE UNIVERSITY

Bachelor of Science Automotive and Heavy Equipment Management (AHM) at University Center Macomb Community College

The automotive and heavy equipment industry needs managers and representatives with up-to-date technical, managerial and communication skills.

Positions exist in dealerships and repair centers and include service management, parts management, sales, leasing and general management. Manufacturers need service, sales, parts and customer relations representatives. In addition, there are other management positions such as: aftermarket managers, fleet managers, technical writers, trainers and government agency managers.

The automotive and heavy equipment management program at Ferris State University has earned a national reputation for providing qualified graduates to fill these positions.

Admission Criteria

Individuals interested in obtaining a B.S. degree must have completed an associate degree in an automotive or heavy equipment related technical area or equivalent. This includes graduates of manufacturer/dealership co-op programs such as GM's ASEP, Ford's ASSET and Chrysler's CAP.

Those interested in enhancing their job skills by taking a class or two need only meet individual course prerequisites.

Required Major Courses

Course Number		Course Title	Credit Hours
AHEM	301	Automotive Marketing & Distribution 1	4
AHEM	302	Automotive Marketing & Distribution 2	4
AHEM	303	Dealership Accounting	4
AHEM	401	Mgmt. of Fixed Operations	4
AHEM	402	Mgmt. of Variable Operations	3
AHEM	404	Warranty Procedures & Customer Relations	3
AHEM	450	Automotive Materials	4
AHEM	493	Internship	4
AHEM	499	Seminar / Project Assessment	1

Additional Required Course

Course Number		Course Title
BLAW	301	Legal Environment of Business
MGMT	301	Applied Management
MKTG	231	Professional Selling
MKTG	321	Principles of Marketing
COMM	121	Fund. of Public Speaking
MATH	115	Int. Algebra (Proficiency) *or*
MATH	117	Contempory Math
ECON	221	Principles of Economics 1
ENGL	311	Adv. Technical Writing
Direct Elective		(See Advisor)

B.S. Degree Minimum General Education Requirem
(A.A.S. & B.S. Degrees combined)

Cultural Enrichment Credits
Communication Credits
Social Awareness Credits
Scientific Understanding Credits

Additional Information

For questions about applying for admiss transcripts, registration, tuition payments, adding/dropping/withdrawing, refunds, c textbook orders, contact:
Ferris State University
Southeast Michigan Regional Center
1401 E. Court Street
Flint, MI 48503-2018
Phone: (810) 762-0461
Fax: (810) 232-8430

For academic advising, including course equivalencies/prerequisites, contact:
Mike Ropele
Ferris State University
Automotive & Heavy Equipment Manager
Phone: (616) 592-2361
or call 1-800-562-9130 and ask for extensio

Bachelor of Science Automotive and Heavy Equipment Management

What does Ferris State offer?

The automotive and heavy equipment management program is a third- and fourth-year program that concentrates on managerial skills required by the automotive and heavy equipment industry. Successful completion of the program leads to a bachelor of science degree.

Instruction is provided in the areas of management, sales, marketing, distribution, customer relations, warranty administration, franchising, dealership operations, accounting, financing, and related computer skills.

Along with specific automotive and heavy equipment management abilities, students have the opportunity to develop communication and other related skills through oral presentations and written projects that are required in many courses. In addition, an on-the-job management internship is an important part of the program.

Ferris State University
Southeast Michigan Regional Center
1401 E. Court Street
Flint, MI 48503-2018

CONSIDER A CAREER I
AUTOMOTIVE MANAGEMEI

FSU BRINGS T

AHM TRADITION T

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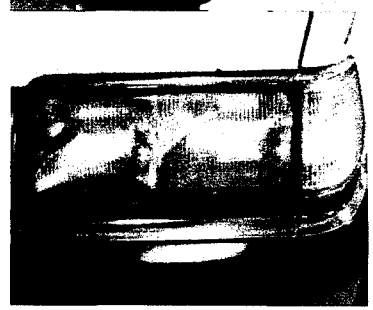

FERRIS STATE UNIVERSI

FERR

NAME: _____ S.S. # _____

FERRIS STATE UNIVERSITY
BACHELOR OF SCIENCE DEGREE
AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT
MACOMB COMMUNITY COLLEGE/UNIVERSITY CENTER

ENTRY CRITERIA

Individuals interested in obtaining a B.S. Degree must have completed an Associate Degree in an automotive or heavy equipment related technical area or equivalent. This includes graduates of manufacturer/dealership co-op programs such as General Motors ASEP, Ford's ASSET and Chrysler's CAP.

Those interested in enhancing their job skills, by taking a class or two, need only meet individual course prerequisites.

COURSES IN MAJOR	CR	FERRIS	MACOMB	OTHER		GRADE
				NAME	COURSE #	
Auto Marketing & Distribution I	4.0	AHEM 301	-			
Auto Marketing & Distribution II	4.0	AHEM 302	-			
Dealership Accounting	4.0	AHEM 303	-			
Management of Fixed Operations	4.0	AHEM 401	-			
Management of Variable Operations	3.0	AHEM 402	-			
Warranty & Customer Relations	3.0	AHEM 404	-			
Automotive Materials	4.0	AHEM 450	-			
Internship	4.0	AHEM 493	-			
Seminar/Project Assessment	1.0	AHEM 499	-			

BUSINESS RELATEDS	CR	FERRIS	MACOMB	OTHER		GRADE
				NAME	COURSE #	
Legal Environment of Business	3.0	BLAW 301	-			
Applied Management	3.0	MGMT 301	MGT 101			
Professional Selling	3.0	MKTG 231	MKT 201			
Principles of Marketing	3.0	MKTG 321	MKT 101			

DIRECTED ELECTIVE (Choose 1)	CR	FERRIS	MACOMB	OTHER		GRADE
				NAME	COURSE #	
Principles of Economics 2	3.0	ECON 222	ECO 117			
Fundamentals of Banking	3.0	FINC 280	-			
Fleet Management	4.0	HSET 402	-			
Introduction to Ethics	3.0	HUMN 216	-			
Introduction to Logic	3.0	HUMN 217	-			
Supervision & Leadership	3.0	MGMT 305	-			
Intermediate Selling	3.0	MKTG 432	-			
Sales Management	3.0	MKTG 436	-			
Introduction to Statistics	3.0	STQM 321	MTH 133			

GENERAL EDUCATION	CR	FERRIS	MACOMB	OTHER		GRADE
				NAME	COURSE #	
Fundamentals of Public Speaking	3.0	COMM 121	SPH 106			
Advanced Technical Writing	3.0	ENGL 311	-			
Scientific Understanding Elective	4.0					
Intermediate Algebra (Proficiency)		MATH 115	MTH 100			
Cultural Enrichment Elective	3.0					
Cultural Enrichment Elective (200 level +)	3.0					
Principles of Economics I	3.0	ECON 221	ECO 116			
Social Awareness Elective (300 level +)	3.0					

B.S. Degree Minimum General Education Requirements in Semester Hours:
(A.A.S. and B.S. Degrees combined)

Cultural Enrichment Credits – 9
Communications Credits – 12
Social Awareness Credits - 9
Scientific Understanding Credits – 7-8

One General Education elective must meet the Global Consciousness requirement. The Race/Ethnicity and/or Gender requirement must also be met. These two requirements can be met through the Social Awareness and/or the Cultural Enrichment elective groups. See the appropriate University Catalog and your advisor for details.

To obtain a B.S. Degree, a student must complete a minimum of 30 **Ferris** semester hours of credit out of the total 68 credits shown on the AHM guide sheet (reverse side).

COMMENTS:

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE AND HEAVY EQUIPMENT MANAGEMENT PROGRAM
COURSE OUTLINE

COURSE TITLE:

AHEM 301; Automotive Marketing and Distribution I

COURSE DESCRIPTION:

Focuses on evolution of automotive product distribution in the U.S., the development of aftermarket channels, marketing, demographics, and the global nature of the industry. Includes an overview of the evolution of management styles, manufacturing processes, and a discussion of current and future trends. PC software applications, applicable to this industry are introduced, including operating systems (Windows), word processing (Word), presentation software (PowerPoint), E-Mail, and Internet access.

CREDIT HOURS:

Four semester hours (4+0)

PREREQUISITES:

None

TEXTBOOKS/SUPPLIES:

The Gregg Reference Manual; William A. Sabin
Seven Habits of Highly Effective People; Stephen Covey
The Machine That Changed the World; James Womack, et al.
Automotive News; subscription
VHS Video Tape (For Student Presentation Portfolio)

TOPICAL UNIT OUTLINE:

1. Introduction
    A. Course Overview
    B. Program Overview
    C. Industry Overview
    D. Student Introduction Presentations
    E. Overview of Industry Periodicals (Auto News Subscription Requirement)
    F. Written Assignment Formats
    G. FSU Library Orientation
    H. Resumes
    I. Role of FSU's "Carreer Services" Office

2. P/C Applications
    A. Windows/Word
    B. E-mail
    C. Internet
    D. PowerPoint (basics of)

3. Macro View of the Industry
    A. (BOOK) The Machine That Changed the World
    B. Industry Historical Perspective
    C. Trade Issues
    D. JIT, Kanban, and Industry Jargon
    E. Deming on Quality
    F. What does made in America really mean?

4. Channels of Distribution
    A. OEM vs. Aftermarket
    B. Vehicles/Equipment
    C. Parts and Accessories
    D. Labor

5. Understanding Pro-active Thinking (BOOK) The Seven Habits of Highly Effective People
    A. Paradigms
    B. Proactive vs. Reactive Thinking
    C. Synergy
    D. Time Management
    E. Character/Ethics
    F. Negotiating Strategies

6. Current Events and Future Trends (Automotive News)

7. Assignments: (S/C = Synopsis/Critique; B/R = Book Report)
    1. S/C "Global Auto Industry"
    2. S/C "JIT"
    3. S/C "Automotive Aftermarket"
    4. S/C " Future of the Industry"
    5. Resume
    6. Thank-you Letters
    7. Progress Report on Term Project
    8. Quiz on The Machine That Changed the World
    9. B/R on The Machine That Changed the World
    10. Quiz on Seven Habits of Highly Effective People
    11. B/R on Seven Habits of Highly Effective People
    12. Term Project
    13. Term Project Presentation
    14. Peer Evaluations (on oral presentations)
    15. Presentation Video Self-critique

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE AND HEAVY EQUIPMENT MANAGEMENT PROGRAM
COURSE OUTLINE

COURSE TITLE:

AHEM 302; Automotive Marketing and Distribution II

COURSE DESCRIPTION:

Overview of wholesale and retail distribution practices, focusing on the OEM franchised dealer system. Includes introduction of wholesale financing, retail financing, leasing, and marketing and demographics. PC Spreadsheet applications and presentation software are introduced as management tools.

CREDIT HOURS:

Four semester hours (4+0)

PREREQUISITES:

AHEM 301

TEXTBOOKS/SUPPLIES:

The Gregg Reference Manual; William A. Sabin
Every Purse and Purpose; John Wysner
Word-of-Mouth Marketing; Jerry Wilson
Automotive News; subscription
VHS Video Tape (For Student Presentation Portfolio)

TOPICAL UNIT OUTLINE:

1. Introduction

2. P/C Applications (Windows, Word, E-mail, and Internet continued from 301 class.)
   A. Spreadsheets (Excel)
   B. Presentation Software (enhanced use of)

3. Financing
   A. History
   B. Wholesale
   C. Retail
   D. Interest/Depreciation
   E. Truth-In-Lending Laws

4. Principles of Leasing
    A. Leasing Terminology
    B. Buy vs. Lease
    C. Tax Issues
    D. Trends in Leasing

5. Franchising/Dealer Licensing
    A. Overview of Franchise Agreements
    B. Term Project Focus
    C. Dealership Licensing

6. Business Insurance

7. Marketing and Demographics

    A. Market Research and Advertising
    B. Role of the Female Buyer
    C. Niche Markets
    D. Measurement Devices
    E. Influencing Strategies
    F. Buyer Loyalty

8. Current Events and Future Trends (Automotive News Quizzes)

9. Assignments: (S/C = Synopsis/Critique; B/R = Book Report)
    1. S/C "Retail Financing"
    2. Quiz on Word of Mouth Marketing
    3. B/R on Word of Mouth Marketing
    4. Quiz on For Every Purse and Purpose
    5. B/R on For Every Purse & Purpose
    6. S/C Buy vs. Lease Comparison
    7. S/C on "Demographics"
    8. Thank-you Letters
    9. Progress Report on Term Project
    10. Term Project
    11. Term Project Presentation
    12. Peer Evaluations (on oral presentations)
    13. Presentation Video Self-critique

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE AND HEAVY EQUIPMENT MANAGEMENT PROGRAM
COURSE OUTLINE

COURSE TITLE:

AHEM 303; Automotive and Heavy Equipment Accounting

COURSE DESCRIPTION:

Focuses on the basic accounting fundamentals and their adaptation to an automotive/heavy equipment industry accounting system. Preparation of accounting statements, reports, and the formation of a small business plan are included. PC spreadsheet applications are introduced as management tools.

CREDIT HOURS:

Four semester hours (3+2)

PREREQUISITES:

None

TEXTBOOKS / SUPPLIES:

The Gregg Reference Manual; William A. Sabin
3-Ring Notebook
Calculator
Hi-Liter

TOPICAL UNIT OUTLINE:

1. Introduction

2. Accounting Basics
    - A. Rules
    - B. Balance Sheet
    - C. Profit and Loss Statement
    - D. Charts of Account
    - E. Standard Accounting Manuals
    - F. Journals
    - G. Subsidiary Records
        1. Accounts Payable
        2. Accounts Receivable
    - H. Inventory Records
    - I. Schedules
        1. Depreciation Schedules
        2. Fixed Asset Schedules
    - J. General Ledger

3. Automotive/Heavy Equipment Industry Accounting
    A. Purchasing of Goods and Services
    B. New/Used Vehicle and Equipment Sales
    C. Parts Sales
    D. Service Sales
    E. Body Shop Sales

4. Cash Flow and Proper Controls

5. Month-End Closing
    A. General Journal
    B. Standard Entries Journal
    C. Reports
    D. Preparation of the Month-End Financial Statement

6. Elements in Starting a Small Business
    A. Formation of a Business Plan
    B. Profit and Loss Statement
    C. Balance Sheet (Proforma)
    D. Use of Spreadsheets (Excel)

7. Related Computer Applications

8. Assignments: (W/S = Worksheet; S/C = Synopsis/Critique)
    1. W/S - Choosing the Correct Account Number
    2. Creation of a Account Number Spreadsheet (Excel)
    3. W/S - Gross Profit/Mark-up
    4. W/S – Purchase Journal
    5. W/S – New and Used Sales
    6. W/S – Parts Sales
    7. W/S – Service Sales
    8. S/C "Accounting Controls"
    9. W/S – Cash Receipts/Disbursements
    10. Thank-you Letters
    11. Term Project Progress Memo
    12. Term Project
    13. Small Business Assignment (using Excel)
    14. Accounting Practice Set

The Automobile: Symbol, Art Form, and Shaper of Society
AHEM 360

Instructor:

Mr. Thomas Brownell (Professor)

Course Background:

In the Twentieth Century no other object has had as much influence on society as the automobile. Indeed, the automobile has been used by movements, has influenced movements, and has been an impetus of change itself. The automobile has affected social change, revolutionized warfare, written a new definition for personal freedom, restructured business, generated enormous quantities of capital, and brought technology to the common citizen. Yet the automobile has been neither wholly benevolent nor benign. It has destroyed community and wreaked environmental havoc. Still, ownership of an automobile is a universal aspiration, which predicts that the Twenty-first Century will spread and embrace the automobile's culture globally.

Course Description:

This course examines the automobile's profound effect on Twentieth Century American culture. For Americans, the car has been this century's dominant symbol--representing freedom, affluence, and power--and the course examines this symbolism. The automobile is also an art form, and the course probes this dimension. Most significantly, the automobile has reshaped American society. The course studies these effects while also looking at changes likely for the future.

Course Topics:

- A study of symbolism: definition, qualities, examples. In what ways is the automobile the dominant symbol of the Twentieth Century?
- A perspective of beauty and elegance. Can the automobile be considered sculpture; can mechanical designs express elegance?
- An examination of Twentieth Century Society as shaped and changed by the automobile. How have personal mobility, mass production advertising, and the time-payment plan indelibly altered American society?
- A view of tomorrow. How will the automobile's global presence, its environmental impact, the saturated markets and congested highways of North America and Western Europe further alter and challenge our future?

Teaching Materials and Resources:

Handouts containing readings

CAR magazine

This British automotive enthusiast magazine is available from Great Lakes Book Store

Video tapes, slides, PowerPoint presentations

Virtual auto museum visit and other resources available through the World Wide Web
Living History (personal interviews)

Course Activities:

Unit 1, Symbolism
Readings: *CAR* magazine and selections from *The Education of Henry Adams*, *On the Road,* and others
Film/video tape: selected scenes showing the automobile in various symbolic roles--*Triumph of the Will*, *Rebel Without a Cause*, *Bullitt, Old Trucks*
Slides & PowerPoint: symbolism examples

Study and interpretation of a symbol, expressed visually, in writing, through computer media and in a group presentation

Unit 2, Art Form
Readings: *CAR* magazine and reference sources
Film/video tapes: *Million Dollar Cars* in Concours de Elegance, Introducing the 1999 Toyota Solara, styling topics from *Wild About Wheels*
Slides: Art and design in automotive styling, mechanical elegance and "rolling sculpture"
Virtual automotive museum visit: e.g. the Blackhawk Museum at Blackhawk.com

Study and interpretation of the automobile as art, expressed visually through posters, dioramas, PowerPoint and video production in conjunction with the annual Automotive Programs Car Show

Unit 3, Shaper of Society
Readings: *CAR* magazine, Tom McCahill's Tucker road, John Twist's autobiography, and others
Film/video tape: *Tucker*, *Roadside Diners and Drive-Ins*, *MoPars and More Old Trucks*
Virtual Road Trip: a WWW itinerary tracing the automobile's tire print on society
Oral (personal interview) or archival (community records) history expressed visually or in writing, and through a group presentation

Unit 4, Change Agent of the Future
Readings: *CAR* magazine and industry sources
World Wide Web
Guest speaker(s)

Course Syllabus for AHEM 360

First Unit--Symbolism
Weeks 1-5

Week 1: Introduction to the course: Understanding symbolism
Reading:"Dynamo and the Virgin" from *The Education of Henry Adams*
PowerPoint, Chartres

Week 2: Symbol examples. Recognizing the symbols in our life/culture
Video--*Triumph of the Will*; discussion
Slides--770 Mercedes
CAR magazine
Discussions

Week 3: The automobile: its symbolic expression
Freedom--physical, social, self-expression
Power--physical, social/economic
Reading--*On the Road*, by Jack Keroac
Video—*Bullitt*
Discussions

Week 4: Symbolism: dimensions of the automobile (continued)
Video--*Rebel Without a Cause*, *Old Trucks*
Discussions

Week 5: Symbolism: dimensions of the automobile (continued)
Presentations

Second Unit:--Art Form
Weeks 6-8

Week 6: Art: definition and interpretation
Video--*Million Dollar Cars*
Reading--*CAR* magazine

Week 7:"Things" as art: elegance in design, automobile as art and sculpture
Video--1999 Toyota Solara,
Virtual auto museum visit (assignment)

Week 8: The automobile as a 20th Century art form: styling studios,
industrial design.
Art deco, form and function
Video--Automotive Styling

Styling projects in conjunction with Auto Show

Third Unit--Shaper of Society

Weeks 9-12

Week 9:The automobile and "the American Dream"
Readings--Tom McCahill Tucker road test
Video--*Tucker*

Week 10: Expanding highways create spawn new service industries and a traveling lifestyle; focus on roadside diners and drive-in theaters
Reading--*CAR* magazine
Video--Diners and Drive-ins

Week 11: Virtual Road Trip: a WWW exploration of the automobile's "tire" print on society
Video--Lindsey Crawford explored America looking for Old Trucks

Week 12:Unit 3 projects

Fourth Unit--The Automobile's Future

Weeks 13-15

Week 13: We play "Henry Adams" for the 21st Century
What are the symbols of the New Century?
Reading--*CAR* magazine

Week 14: Where will the automobile take us
Reading
Video

Week 15: Prepare portfolio and course wrap-up

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
TRANSPORTATION AND ELECTRONICS DEPARTMENT
AUTOMOTIVE AND HEAVY EQUIPMENT MANAGEMENT PROGRAM
COURSE OUTLINE

COURSE TITLE:

AHEM 401; Management of Fixed Operations

COURSE DESCRIPTION:

Two part course that introduces financial statement analysis as a key to automotive management. Major emphasis is placed on the parts, service, and body shop operations, including PC based dealership management software as a management tool. Includes the preparation of a comprehensive dealer business plan, outlining typical steps and procedures involved in the planning, building, staffing, and financing of a typical dealership.

CREDIT HOURS:

Four semester hours

CONFIGURATION:

4 + 0

PREREQUISITES:

AHEM 303

TEXTBOOKS/SUPPLIES:

The Gregg Reference Manual: William A. Sabin; Eighth Edition; McGraw-Hill
Customers for Life; Carl Sewell
The Seven Controllables of Service Department Profitability; Ron Stoner & Forrest Vanderwall
Automotive News

TOPICAL UNIT OUTLINE:

1. Introduction
    A. Course Overview
    B. Relationship to AHEM 303 and 402
    C. Senior Year – Job Search Focus

2. The Financial Statement (F/S) and the Fixed Operation
    A. Purpose and Management Use of the F/S
    B. Information Contained on the Typical F/S
    C. The Balance Sheet
    D. Parts Department Overview
    E. Service (Mechanical) Department Overview
    F. Body Shop Overview
    G. Rules of Thumb, Ratios, and Trends & Composite Information
    H. Managing Costs, Variable Expenses and Fixed Expenses
    I. Creative Pay Plans for the Fixed Operation
    J. Business Philosophy and Customer Relations (Sewell Book)

K. Merchandising the Fixed Operation
L. Measuring the Performance of the Fixed Operation (The Seven Controllables Book)

3. Overview of Automotive Management Computer Hardware and Software
   A. Features and Benefits
   B. System Security
   C. Reinforcement of Concepts/Principles That Have Been Discussed in This and Other AHM Classes
   D. Typical Management Reports
   E. Dealer – Manufacturer Communications
   F. Future Trends

4. Planning/Building a Dealership From the Ground Up (Term Project)
   A. Purpose and Philosophy
   B. Obtaining the Franchise
   C. State Licensing
   D. Market/Location
      1. Demographics
      2. Traffic Count Information
      3. Legal Descriptions
      4. History/Future of the Area
      5. Availability of Utilities and Services
      6. Working with Realtors
      7. Zoning Requirements
   E. Site Preparation
   F. Facility
      1. Size
      2. Sample Floor Plans
      3. Construction Costs
      4. Future Considerations
      5. Working With Contractors
   G. Personnel
      1. Table of Organization
      2. Job Descriptions
      3. Pay Plans
      4. Writing Policies and Procedures
      5. Setting Department Goals and Objectives
   H. Financial Plan
      1. Pro-forma Balance Sheet
      2. P&L Statement
      3. Working With Bankers and the Captive Finance Companies
      4. Overall Cost Feasibility

5. Current Events and Future Trends (Automotive News Quizzes)

6. Assignments:
   1. Up–to-Date Resume/Registration With Placement Office
   2. S/C "Service (Mechanical) Department Innovations"
   3. S/C "Body Shop Innovations"
   4. S/C "Parts Department Innovations"
   5. B/R Sewell Book
   6. Thank-you Letters
   7. Group Presentation on the Seven Controllables Book
   8. Weekly Automotive News Quizzes (10–12 in Total)
   9. Written Term Project – "Building a Dealership From the Ground Up"

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE AND HEAVY EQUIPMENT
DEPARTMENT
COURSE OUTLINE

Course: AHEM 402
Date: 1993-94
Dept. Approval: _____

COURSE TITLE:

AHEM 402 Management of Variable Operations

COURSE DESCRIPTION:

Management of dealership new and used vehicle sales departments. Special emphasis on personnel selection/motivation/training, vehicle advertising/marketing/merchandising and wholesale/retail career positions.

CREDIT HOURS:

Three Semester Hours

CONTACT HOURS:

Lecture: 3 Hours/Week
Lab: 0

PREREQUISITES:

AHEM 401

TEXTBOOKS REQUIRED:

Prentice-Hall Handbook for Writers, 11th Edition
Author: Leggett Publisher: Prentice-Hall

TEXTBOOKS RECOMMENDED:

How to Sell Anything to Anybody
Author: Girard Publisher: Warner

UNITS OF INSTRUCTION AND STUDENT LEARNING GOALS FOR EACH:

		TIME WEIGHT	
		Lecture Hours	Lab Hours
I.	Introduction to the Course	4	0
	A. Understand the objectives of the course.		
	B. Understand the grading and attendance policies.		
	C. Understand all written and oral projects as well as the deadlines for each.		

		Lecture Hours	Lab Hours
II.	Oral and Written Projects	5	0
	A. Provide time for presentation of oral projects.		
III.	Sales Department Management and Objectives	15	0
	A. Learn the meaning of variable operations.		
	B. Learn analysis of variable operations by line-item on financial statement.		
	C. Understand the various positions available to AHEM graduates in both Manufacturer/ Distributorships and Dealerships, as well as the relationships between each as they relate to Franchise Agreements.		
	D. Learn how to build and maintain a successful sales force.		
	E. Understand compensation programs for sales people as well as sales managers.		
IV.	New Vehicle Marketing, Merchandising and Sales	12	0
	A. Become acquainted with the premises and principles of Motivational Training.		
	B. Learn the importance as well as the divisions of Product Training.		
	C. Learn the importance, rationale, and functioning of a Sales Control System.		
	D. Learn the importance, rationale, and functioning of a Follow-Up System.		
V.	Used Vehicle Merchandising and Sales	3	0
	A. Learn the principles of Appraisal including familiarization with Blue Books.		
	B. Learn principles of procurement of used vehicles.		
	C. Learn pricing policies.		
	D. Understand Reconditioning principles and procedures.		
VI.	Finance and Insurance Marketing, Merchandising and Sales	3	0
	A. Learn the principles and techniques of "F&I" sales.		
	B. Understand importance of "F&I" as a profit center.		
VII.	Advertising	3	0
	A. Learn principles and importance of automotive advertising.		
	B. Learn types of programs which share the advertising responsibilities between manufacturer/distributor and dealer.		
	C. Learn selection of media.		
	TOTAL	45	0

TOPICAL UNIT OUTLINE OF MAJOR UNITS OF INSTRUCTION:

I. Introduction to the Course
   A. Course objectives.
   B. Grading and attendance policies.
   C. Due dates for written and oral projects.
      1. Weekly computer assignments.
      2. Management II oral group presentation.
      3. Management II written project.

II. Oral and Written Projects
   A. Provision of time for the purpose of group reports on automotive and heavy equipment management by the students enrolled in AHEM 402.

III. Sales Department Management Objectives
   A. Variable operations as opposed to fixed operations.
   B. Management principles of variable operations by means of line-item analysis of sample automotive financial statement.
   C. Manufacturer/distributorship as well as dealership functions and positions as they relate to A/HM graduates.
   D. Principles necessary in building and maintaining a successful sales force.
   E. Sales manager's as well as sales person's compensation programs.

IV. New Vehicle Marketing, Merchandising and Sales
   A. Principles of motivational training.
   B. The importance, as well as the various sections, of product training.
   C. The necessity for, and divisions of a sales control system.
   D. Importance and function of a sales follow-up system.

V. Used Vehicle Merchandising and Sales
   A. Principles of appraising used vehicles, to include complete familiarity with "Blue Books".
   B. Principles of procurement of used vehicles.
   C. Retail pricing policies of used vehicles.
   D. Principles and procedures of used vehicle reconditioning.

VI. Finance and Insurance Marketing, Merchandising and Sales
   A. Principles and Techniques of "F&I" sales.
   B. "F&I" as a profit center.
   C. "F&I" progress.

VII. Advertising
   A. The principles and importance of automotive advertising.
   B. Types of advertising programs and how they enable the sharing of advertising responsibilities between manufacturer/distributor and dealer under automotive franchise systems.
   C. Principles of media selection.

MINIMUM REQUIRED STUDENT LAB ACTIVITIES:

None required.

All instruction will be supplemented by appropriate hand-outs and/or visual aids.

PREPARED BY: _____ _____

_____ _____

DATE: _____

COURSE TITLE:

AHEM 404 Warranty Procedure and Customer Relations

COURSE DESCRIPTION:

Identification of product failure, and the interaction required between the customer, dealer and the manufacturer to achieve acceptable solutions to field problems. Includes preparation of warranty and field reports.

CREDIT HOURS:

3 Semester Hours

CONTACT HOURS:

Lecture: 3 Hours/Week
Lab: 0

PREREQUISITES:

Senior standing and department approval.

TEXTBOOKS REQUIRED:

None.

UNITS OF INSTRUCTION AND STUDENT LEARNING GOALS FOR EACH UNIT:

		TIME WEIGHT	
		Lecture Hours	Lab Hours
I.	Introduction to the Course	3	0
	A. Understand the objectives of the course.		
	B. Know what the written projects are and when they are to be turned in.		
	C. Understand the grading and attendance policies.		
II.	Express and Implied Warranties	7	0
	A. Be familiar with express warranties.		
	B. Be familiar with implied warranties.		
	C. Prepare a written report on an implied warranty case.		
	D. Prepare a written report on an implied warranty case.		
	E. Present an oral report on an express or implied warranty case.		
	F. Be familiar with the Magnuson-Moss Warranty Act.		

III.	Cameras and Isometric Drawings	3	0
	A. Demonstrate the ability to use a 35mm camera.		
	B. Demonstrate the ability to use an instant developing camera.		
	C. Produce an isometric sketch of a failed part.		
IV.	Dealership Warranty Records and Procedures	12	0
	A. Be familiar with warrant claim forms.		
	B. Be familiar with transportation claim forms.		
	C. Be familiar with dealership records supporting warranty.		
	D. Understand and use manufacturer's warranty labor rate manuals.		
	E. Understand the service manager's responsibilities in warranty procedures.		
	F. Understand the service representative's responsibilities in warranty procedures.		
	G. Demonstrate the ability to justify or deny warranty requests.		
	H. Be familiar with the legal aspects of warranty.		
V.	Customer Relations	13	0
	A. Understand the need for good customer relations concerning service satisfaction.		
	B. Practice good customer relations through in-class role playing.		
	C. Be familiar with proper telephone procedures and courtesy.		
	D. Practice phone techniques in class.		
	E. Be familiar with consumer advocate organizations that affect warranty and customer relations.		
	F. Be familiar with the proper methods of handling customer complaints.		
VI.	Present Oral and Written Projects	7	0
	TOTAL	45	0

I. Introduction to the Course
   A. Learn objectives.
   B. Attendance and grading requirements.
   C. Due dates for written work and presentations.
      1. Express and implied warranty paper.
      2. Magnuson-Moss Warranty paper.
      3. Written term project.
      4. Term project oral presentation.

II. Express and Implied Warranties
   A. Express and implied warranties.
   B. The Magnuson-Moss Act.
   C. Critique of student presentations on implied and express warranty.

III. Cameras and Isometric Drawings
   A. Demonstrate the operation of a 35 mm SLR camera.
   B. Demonstrate the operation of an instant developing camera.
   C. Critique student use of the cameras.
   D. Fundamentals of isometric sketching.

IV. Dealership Warranty Records and Procedures
   A. Warranty claims.
   B. Transportation claims.
   C. Dealership warranty support records.
   D. Warranty flat rate manuals.
   E. Critique students in warranty and transportation claim preparation.
   F. The service manager's and service representative's responsibilities in warranty procedures.
   G. Warranty justification or denial.
   H. The legal aspects of warranty.

V. Customer Relations
   A. Need for good customer relations.
   B. Critique students in role-playing situations concerning customer relations.
   C. Proper telephone procedures and courtesy.
   D. Critique students in customer-complaint role-playing situations.

MINIMUM REQUIRED STUDENT LAB ACTIVITIES:

None.

Students will be required to present a Written Report and an Oral Presentation on a warranty topic.

PREPARED BY:_____

DATE:_____

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE & HEAVY EQUIPMENT
DEPARTMENT
COURSE OUTLINE

Course: AHEM 450
Date: 1993-94
Dept. Approval: _____

COURSE TITLE:

AHEM 450 Automotive Materials

COURSE DESCRIPTION:

Survey type course designed to give students an overview of the materials, fuels and lubricants used in the automotive, heavy equipment, and trucking industries. Topics are also included concerning environmental concerns and alternative energy sources.

CREDIT HOURS:

4 Semester Hours

CONTACT HOURS:

Lecture: 4 Hours/Week
Lab: 0 Hours/Week

PREREQUISITES:

Senior standing in Automotive and Heavy Equipment Management program, or approval of course instructor.

TEXTBOOK REQUIRED:

Changes In Gasoline, Downstream Alternatives, 1990.

UNITS OF INSTRUCTION AND STUDENT LEARNING GOALS FOR EACH UNIT:

		Lecture Hours	Lab Hours
I.	Introduction to Course	1	0
	A. Understand the course objectives.		
	B. Know what the project entails, and when it is due.		
	C. Understand grading and attendance policies.		
II.	Petroleum and Refining	2	0
	A. Learn the characteristics of petroleum:		
	1. Chemical and physical properties.		
	2. Types of hydrocarbons.		
	B. Understand basic petroleum refining terminology.		

		Lecture Hours	Lab Hours
III.	Gasoline and Alcohol Fuels	8	0
	A. Learn the difference between normal and abnormal combustion.		
	B. Understand basic terminology concerning gasoline (octane, energy content, volatility, etc.)		
	C. Understand the characteristic differences between gasoline and alcohols.		
	D. Learn the significance of gasoline tests.		
	E. Understand the purpose of gasoline additives.		
	F. Understand the importance of proper underground storage tank procedures.		
IV.	Diesel and Gaseous Fuels	6	8
	A. Learn the difference between spark ignition combustion vs. compression ignition combustion.		
	B. Understand the basic terminology of diesel fuel (octane, volatility, energy content, etc.)		
	C. Understand the purpose of diesel additives.		
	D. Know generally accepted cold weather operating procedures.		
	E. Learn the differing characteristics between gaseous fuels and liquid fuels.		
V.	Lubricating Oils and Grease	14	0
	A. Understand SAE viscosity classifications.		
	B. Understand API/ASTM/SAE service classifications.		
	C. Learn the purpose and benefits of oil additives.		
	D. Understand the characteristics of synthetic oils.		
	E. Learn the purpose and benefits of used oil analysis programs.		
	F. Learn the characteristics of gear oils, hydraulic oils, and automatic transmission oils.		
	G. Learn how and why additives are used in gear oils, hydraulic oils and automatic transmission oils.		
	H. Understand the NLGI grease classifications.		
	I. Know the advantages and disadvantages of grease compared to a liquid lubricant.		

	Lecture Hours	Lab Hours
J. Learn the significance of grease tests.		
K. Know the purpose and benefits of different thickeners and additives of grease.		
L. Understand the importance of proper hazardous waste and recycling procedures.		
VI. Metals	12	0
A. Understand the common terminology related to metals and their physical properties.		
B. Be able to define basic ferrous and nonferrous metals and their characteristics.		
C. Understand the various heat treat processes.		
D. Know the basic destructive and non-destructive tests for metals.		
E. Understand the basic concept of failure analysis.		
VII. Plastics	10	0
A. Understand the common terminology related to plastics and their physical properties.		
B. Know the most common manufacturing processes related to plastics.		
C. Identify common plastics and be able to discuss their applications.		
VIII. Student Presentations	7	0
A. Be able to present to a group, without reading copy, a 15 - 20 minute speech on one of the following topics:		
1. Hazardous waste.		
2. Alternative fuels.		
3. Recycling.		
4. Paint.		
5. Ceramics		
6. Miscellaneous Materials		
TOTAL	60	0

TOPICAL UNIT OUTLINE OF MAJOR UNITS OF INSTRUCTION:

I. Introduction to Course
   A. Objectives
   B. Projects
   C. Grading and attendance policies

II. Petroleum and Refining
   A. Characteristics
   B. Types of hydrocarbons
   C. Terminology

III. Gasoline and Alcohol Fuels
   A. Normal and abnormal combustion
   B. Terminology
   C. Characteristic differences
   D. Tests
   E. Additives
   F. Underground storage tank procedures

IV. Diesel and Gaseous Fuels
   A. Spark ignition combustion vs. compression ignition combustion
   B. Terminology
   C. Additives
   D. Cold weather operating procedures
   E. Gaseous fuels

V. Lubricating Oils and Grease
   A. SAE viscosity classifications
   B. API/ASTM/SAE service classifications
   C. Additives
   D. Synthetic oils
   E. Used oil analysis program
   F. Gear oils, hydraulic oils and automatic transmission oils
   G. Additives
   H. Hazardous waste and recycling procedures
   I. Grease

VI. Metals
   A. Terminology and properties
   B. Characteristics of ferrous and nonferrous metals
   C. Heat treat processes
   D. Destructive and nondestructive tests
   E. Failure analysis

VII. Plastics
   A. Terminology
   B. Manufacturing processes
   C. Identification and application

VIII. Student Presentations
   A. Hazardous waste
   B. Alternative fuels
   C. Recycling
   D. Paint
   E. Ceramics
   F. Miscellaneouse materials

MINIMUM REQUIRED STUDENT LAB ACTIVITIES DEFINED:

None.

PREPARED BY: _____

_____

DATE: _____

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE & HEAVY EQUIPMENT
DEPARTMENT
COURSE OUTLINE

Course: AHEM 493
Date: 1993-94
Dept. Approval: _____

COURSE TITLE:

AHEM 493 Automotive Management Internship

COURSE DESCRIPTION:

Work experience with manufacturers, distributors or dealers. Written weekly progress reports by the student will be required.

CREDIT HOURS:

6 Semester Hours

CONTACT HOURS:

15 Weeks Full Time

PREREQUISITES:

Senior standing and department approval.

TEXTBOOKS REQUIRED:

None.

PREPARED BY: _____

_____

DATE: _____

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY
AUTOMOTIVE & HEAVY EQUIPMENT
DEPARTMENT
COURSE OUTLINE

Course: AHEM 499
Date: 1993/94
Dept. Approval: _____

COURSE TITLE:

AHEM 499 Internship Seminar/Project & Assessment

COURSE DESCRIPTION:

Includes three orientation sessions which must be completed during the semester prior to internship and one all day on campus seminar near the end of the internship semester. Also includes a problem centered project planned in joint agreement with student, employer and program coordinator to be completed during internship and presented as a written term paper. Concurrent enrollment with AHEM 493 (1+ 0).

CREDIT HOURS:

1 Semester Hour.

CONTACT HOURS:

N/A

PREREQUISITES:

Senior standing and department approval.
Concurrent enrollment with AHEM 493.

TEXTBOOKS REQUIRED:

None.

PREPARED BY: _____

_____

DATE: _____

AHM 301
Automotive Marketing and Distribution 1

INSTRUCTOR: _____
PHONE: W-591-2361 H- _____
E-MAIL: _____
FAX: 231/591-5982 (A-C 101)
OFFICE: Automotive Center 103
OFFICE HOURS: _____ (or by appointment)

COURSE DESCRIPTION:

AHM 301 is the introductory course in the AHM curriculum. It has three main objectives: to introduce you to the industry; to improve your written and oral communication skills; and to offer you a benchmark against which you can evaluate and improve your personal effectiveness. Specifically, the course presents the following topics:

- Orientation to the AHM program and curriculum.
- Introduction to automotive periodicals and their relationship to the industry.
- Introduction to automotive distribution, both manufacturer and in the aftermarket.
- Introduction to pricing and distribution channels
- Introduction to and discussion of the global nature of the automotive industry.
- Introduction to principles of effective management
- Overview of W. Edwards Deming's Quality Principles
- Introduction to major personalities and events in the automotive industry.
- Familiarity with word processing, Windows, E-mail, and the World Wide Web

REQUIRED MATERIALS:

"*Gregg Reference Manual,*" Sabin
"*The Machine That Changed the World,* by Womack," Jones and Roos
"*The Seven Habits of Highly Effective People,*" Covey
E-mail address
3-Ring Notebook; Hi-Liter; VHS Video Tape

ATTENDANCE:

Information is presented every class period that is needed for success in this course. Regular attendance and active participation are therefore required.

There is no reason for absences without prior notification. I expect you to e-mail me as soon as you know you will be absent with the date(s) of the absence, reason for the absence, and arrangements to turn in assignments and make up work. It must be in memo format as a Word attachment. The instructor will review all e-mail memos, at the end of the semester to determine if absences are excused or unexcused. ALL absences must have an e-mail memorandum before the instructor can excuse ANY absence.

The third, and all subsequent unexcused absences reduces the student's final grade (overall percentage) by 2.00 points. Three tardies equal one unexcused absence.

The student is responsible for any lecture material that is missed, as well as any assignments made, during any absence. ALL ASSIGNMENTS MUST BE TURNED IN ON TIME (start of class time)! Ten percent of maximum grade is deducted every business day the assignment is late, whether the absence is excused or not.

OTHER CRITERIA:

Every student must be current in all assignments to take the next exam. A medical excuse, in addition to the memorandum is the only way a student can make up an exam. A grade of F is earned if all assignments are not turned in one day before the end of the semester. Two copies of all assignments must be turned in, unless the instructor indicates otherwise.

Plagiarism in any form will result in a grade of "F" for the course. See integrity/ plagiarism handout for more details.

Students with a documented disability (physical, learning, mental, emotional) requiring a classroom accommodation should contact the Disabilities Services Office, located in Arts & Sciences Commons (ASC) 1017K, X-3772 or ASC 1021, X-5039.

WRITING CENTER:

One letter grade (B + to A -) can be added to your grade by participating in the spelling and writing workshops offered by the Writing Center (located in ASC). Details to follow.

INSTRUMENT	DATE	POINTS AVAILABLE	POINTS RECEIVED
Unit test 1	_____	100	_____
Unit test 2	_____	100	_____
Unit test 3	_____	100	_____
Book Report	_____	50	_____
Book Report	_____	50	_____
Assignment # 1	_____	30	_____
Assignment # 2	_____	30	_____
Assignment # 3	_____	30	_____
Assignment # 4	_____	30	_____
Assignment # 5	_____	30	_____
Assignment # 6	_____	30	_____
Thank you	_____	10	_____
Progress memo	_____	10	_____
Term paper	_____	100	_____
Presentation	_____	100	_____
Self-critique	_____	30	_____
Peer eval (avg)	_____	10	_____
TOTAL		840	_____

GRADING SCALE:

95 -100 A	76 - 78 C
92 - 94 A-	73 - 75 C-
89 - 91 B+	70 - 72 D+
86 - 88 B	67 - 69 D
83 - 85 B-	64 - 66 D-
79 - 82 C+	00 - 63 F

WRITTEN ASSIGNMENT GUIDELINES:

Be sure the topic fits the assignment. Follow any handouts specific to each assignment, if available.

Use the appropriate heading format and plagiarism statement from the AHM Format handout. The title should accurately reflect the information in the assignment. (OUTLINE or FRANCHISE ASSIGNMENT is not accurate enough). Be sure to sign both copies of the plagiarism statement.

Organize the paper to contain an introduction, main topic, and a conclusion. With a synopsis/critique format, both parts should have a beginning, middle, and end.

Present the information in a clear and concise manner. Sentence lengths should vary, to make reading more interesting. Avoid contractions as they can confuse the reader. Each paragraph, no more than ten lines in length, should develop one main idea. There should not be repetition in the thoughts being presented. Write it once and move on to the next idea.

Avoid wordiness. Get to the point. For example, the sentence "I'm writing to thank you..." can be written "Thank you..." and still convey the same message. ("Mr. Jones stated the industry is saturated..." can be written "The industry is saturated...")

Concentrate on three to five main ideas (management principle, etc) depending on the assignment. Choose words carefully to convey a depth of understanding of those major ideas. For example, read the sentence "Word of Mouth Marketing deals with steps management can take to build a loyal customer base." What does "deals with" mean? It is very superficial. If one of the major ideas is "build a loyal customer base" then explain how management can do this. "...Deals with..." does not explain the main idea sufficiently.

Write in a consistent technical style. Use the present tense (avoid "will"), third person (avoid "you") and active voice, as much as possible. If unclear on these terms, refer to your reference manual and the Writing Center on campus for assistance.

Use very few quotes. A synopsis should be a summary, ie, in your own words.

Use the spellchecker, but do not rely on it totally. There are many "correct" spellings. Have someone proof read the paper. Have someone read it out loud back to you (or read it out loud to yourself). This highlights those areas that "sound" funny. Word usage can be a problem (for example; it's means it is; too means also, etc). Refer to your reference manual and the Writing Center on campus for assistance.

Instructor: _____
Phone: Office: (231) 591-2361 Fax: (231) 591-5982 Home: _____
E-Mail: _____
Office: Automotive Center 103
Office Hours: _____ (or by appointment)

Required Materials:

Resources:

AUTOMOTIVE NEWS, Website review as well as others required weekly
The Gregg Reference Manual, William A. Sabin
Word of Mouth Marketing, Jerry Wilson
Every Purse and Purpose, John Wysner

Materials:

- Collegiate Dictionary
- Calculator
- 3 Ring Notebook (8.5" x 11")
- "High-Liter"
- Blank VHS Tape

Course Description:

Overview of wholesale and retail financing practices, franchise agreements, financing and interest rate principles, dealership licensing and insurance, lease and rental principles, and the basic principles involved in the establishment of a small business.

Attendance:

Attendance of all class sessions is required. In the event of an absence, prior notification is strongly advised. An excused absence will require a professionally typed memorandum to be delivered to the instructor on the next business day following the absence. If you are unable to deliver the memorandum in person, it is acceptable to leave it in the Automotive Center Office (AC-101). All absence memorandums will be reviewed by the instructor at the end of the semester to determine if the absence is excused or unexcused.

The third and all subsequent unexcused absences will reduce the final grade (overall percentage) by two percentage points each. Three tardies shall equal one unexcused absence.

A medical excuse (Doctor's Note), in addition to a memorandum, is the only way a student may make up an exam.

You are responsible for any lecture material that is missed, as well as any assignments that were given during an absence. All assignments are to be turned in on the due date. Any assignments that are late will have 10% deducted from the grade for every business day past the due date. You must be current in all assignments to be able to take the next unit test. A failing grade for the course will be given if all assignments are not turned in at least one class day before the end of the semester.

95 - 100 = A	76 – 78 = C
92 – 94 = A-	73 – 75 = C-
89 – 91 = B+	70 – 72 = D+
86 – 88 = B	67 – 69 = D
83 – 85 = B-	64 – 66 = D-
79 – 82 = C+	0 - 63 = F

Topical Unit Outline:

I. Introduction to the course.
   A. Objectives of the course
   B. Grading and Attendance Policies
   C. Written and Oral projects

II. Retail Financing
   A. The needs of automotive dealers for retail financing services
   B. Services provided to dealers by their financing affiliates.

III. Interest
   A. Major types of interest and the computation of each.
   B. Floor plan interest and daily interest.
   C. Usury and Truth-In-Lending Laws.

IV. Setting up a Small Business
   A. Financial terminology as it relates to profit.
   B. Financial projections.
   C. Expense categories.

V. Leasing and Rental Business
   A. Leasing and rental terminology
   B. Rationale for leasing vs. ownership.
   C. Various methods of figuring depreciation.
   D. Computation of the Lease.
   E. Federal Regulations

VI. Automotive Franchising
   A. The terms and conditions of and automotive franchise.
   B. Laws and rules set by manufacturers and government.

VII. Dealership Insurance coverage
   A. Types of insurance coverage required by an automotive business.

VIII. Business Plans
   A. Development
   B. Balance Sheet elements
   C. Profit and Loss Projection

IX. Michigan Secretary of State Services.
   A. Requirements for obtaining a Michigan dealer's license.
   B. Secretary of State's relationship to dealerships in terms of required paperwork and dealers' responsibilities under Michigan Law.

Instrument	Date	Points Available	Points Received
Unit test 1	_____	100	_____
Unit test 2	_____	100	_____
Unit test 3	_____	100	_____
Interest Worksheet	_____	30	_____
Lease/Finance Paper	_____	50	_____
Thank You Letter(s)	_____	10	_____
Spread Sheets	_____	50	_____
Book Report 1	_____	50	_____
Book Report 2	_____	50	_____
Quiz 1	_____	10	_____
Quiz 2	_____	10	_____
Quiz 3	_____	10	_____
Quiz 4	_____	10	_____
Quiz 5	_____	10	_____
Quiz 6	_____	10	_____
Quiz 7	_____	10	_____
Quiz 8	_____	10	_____
Quiz 9	_____	10	_____
Quiz 10	_____	10	_____
Progress Memo	_____	10	_____
Thank You 1	_____	10	_____
Thank You 2	_____	10	_____
Term Project	_____	100	_____
Presentation	_____	100	_____
Peer Evaluation	_____	10	_____
Self Critique	_____	30	_____
==========	==========	==========	==========
		Total: 910	_____

Note: You are required to turn in <u>two copies</u> of every assignment <u>except</u> for the thank you letters.

AHM 303
DEALERSHIP ACCOUNTING

INSTRUCTOR: _____
PHONE: (231) 591-2361 (HOME:___-____)
E-MAIL: _____
OFFICE: Automotive Center 103
OFFICE HOURS: _____ (or by appointment)

REQUIRED MATERIALS:

Gregg Reference Manual
Collegiate type dictionary
Calculator, with tape (can be shared)
3 Ring Notebook, hi-liter

COURSE DESCRIPTION:

Introduction to accounting fundamentals and their adaptation to a factory/distributor/dealership accounting system. Preparation of accounting statements and reports for management uses. Introduction to computerized accounting.

ATTENDANCE:

There is no reason for absences without prior notification. An excused absence requires a professionally typed memorandum delivered to the instructor by the first day back in class. You may also leave it in the automotive office at A-C 101. The instructor will review the memo, at the end of the semester, to determine if the absence is excused or unexcused. ALL absences must have a memorandum before the instructor can excuse ANY absence.

The third, and all subsequent unexcused absences reduce the student's final grade by 2.00 (overall percentage) points. Three tardies equal one unexcused absence.

A medical excuse, in addition to the memo is the only way a student can make up an exam. The student is responsible for any lecture material that is missed, as well as any assignments made, during any absence. ALL ASSIGNMENTS MUST BE TURNED IN ON TIME (start of class time)!!! Ten (10) % of maximum grade is deducted every business day the assignment is late, whether the absence is excused or not. The student must be current in all assignments to take the next exam. A final grade of 'F' is earned if all assignments are not turned in one class day before the end of the semester. Students are required to turn in two copies of all assignments, except for thank you letters, or if the instructor indicates otherwise.

GRADING SCALE:

95 - 100	A	76 - 78	C
92 - 94	A-	73 - 75	C-
89 - 91	B+	70 - 72	D+
86 - 88	B	67 - 69	D
83 - 85	B-	64 - 66	D-
79 - 82	C+	00 - 63	F

ASSIGNMENTS:

INSTRUMENT	DATE	POINTS AVAILABLE	POINTS RECEIVED
Unit test 1	_____	100	_____
Unit test 2	_____	100	_____
Unit test 3	_____	100	_____
Assignment # 1	_____	30	_____
Assignment # 2	_____	50	_____
Worksheet 1	_____	10	_____
Worksheet 2	_____	30	_____
Worksheet 3	_____	20	_____
Worksheet 4	_____	30	_____
Worksheet 5	_____	30	_____
Worksheet 6	_____	30	_____
Worksheet 7	_____	20	_____
Worksheet 8	_____	20	_____
Worksheet 9	_____	20	_____
Project outline/memo	_____	10	_____
Thank you	_____	10	_____
Term project	_____	100	_____
Practice set	_____	100	_____
TOTAL		810	_____

AHM 401, FALL 2000
MANAGEMENT OF FIXED OPERATIONS

Instructor: _____
708 Campus Drive (A-C 103)
Big Rapids, MI 49307
PHONE: 591-2361 Home: _____
Automotive Center Fax: 231/591-5982 (A-C 101)
E-Mail: _____

Office Hours: _____or by appointment

REQUIRED MATERIALS:

Automotive News Website review as well as others required weekly
Customers for Life, by Carl Sewell
The Seven Controllables of Service Department Profitability, by Ron Stoner & Forest "Skip" Vanderwall (Atcon)
Gregg Reference Manual, 8th Edition, by William A. Sabin
Collegiate-type Dictionary
Calculator (Please bring to class each day)
Highlighters (Multiple colors)
3-Ring Notebook

COURSE DESCRIPTION

A two-part course that introduces financial statement analysis as a key to automotive management. Also includes a detailed overview of the steps and procedures involved in the planning and building of an automotive dealership from the ground up. Emphasis centers on parts, service and body shop operations. (COURSE PREREQUISITE: AHEM 303 – Dealership Accounting)

ATTENDANCE:

One hundred percent attendance is encouraged, however students will receive up to two absences without penalty to their final grade. The third and any subsequent absence will cost the student **2 points each** from their final grade. A professionally prepared memorandum is required to receive each excused absence.

Please note: Three tardies will equal one absence.

A medical excuse, in addition to a memorandum, will allow the student to make up an exam.

The student is responsible for any lecture material missed, as well as any assignment made, during an absence. **All must be completed on time.** Points will be deducted at **10 % per day (M-F)** for any late assignments, whether or not the student is absent the day the assignment is due.

GRADING (based on)

Tests..... 40%
Written/Weekly Assignments..... 20%
Website Quizzes..... 15%
Term Project (details to follow)..... 25%

A	95-100	B-	83-85	D+	70-72
A-	92-94	C+	79-82	D	67-69
B+	89-91	C	76-78	D-	64-66
B	86-88	C-	73-75	F	63 and below

Each test, written assignment, Auto News/Website quiz, and term project will receive a numerical grade. Your final grade will be based on the total points accumulated, in the percentages indicated above. A grade of "F" will be earned if all assignments are not in one class period before the final examination.

AHM 402
MANAGEMENT OF VARIABLE OPERATIONS

INSTRUCTOR: _____
PHONE: NOTE NEW AREA CODE: (231) 591-2361 HOME:_____
E-MAIL: _____
OFFICE HOURS: _____ (or by appt)

REQUIRED MATERIALS:

Gregg Reference Manual
Automobile Sales Manager's Complete Success Formula, McCormick
Collegiate-type dictionary
Hi-liter, calculator, and three ring binder

COURSE DESCRIPTION:

New vehicle sales management. Sales training. Compensation programs for sales personnel. Manufacturer/dealer sales organizations. Used vehicle sales management. Financial statement analysis.

ATTENDANCE:

There is no reason for absences without prior notification. An excused absence requires a professionally typed memorandum delivered to the instructor by the first day back in class. You may also leave it in the automotive office at A-C 101. The instructor will review the memo, at the end of the semester to determine if the absence is excused or unexcused. ALL absences must have a memorandum before the instructor can excuse ANY absence.

The third, and all subsequent unexcused absences reduces the student's final grade (overall percentage) by 2.00 points. Three tardies equal one unexcused absence.

Every student must be current in all assignments to take the next exam. A medical excuse, in addition to the memorandum is the only way a student can make up an exam.

The student is responsible for any lecture material that is missed, as well as any assignments made, during any absence. ALL ASSIGNMENTS MUST BE TURNED IN ON TIME (start of class time)! Ten percent of maximum grade is deducted every business day the assignment is late, whether the absence is excused or not.

OTHER CRITERIA:

Every student must be current in all assignments to take the next exam. A grade of F is earned if all assignments are not turned in one day before the end of the semester. Two copies of all assignments must be turned in, unless the instructor indicates otherwise.

INSTRUMENT	POINTS DATE	POINTS AVAILABLE	RECEIVED
Unit test 1	_____	100	_____
Unit test 2	_____	100	_____
Book Report	_____	50	_____
Commission assign	_____	50	_____
Invoice assignment	_____	50	_____
NADA tape review	_____	30	_____
Thank you 1	_____	10	_____
Thank you 2	_____	10	_____
Progress memos(team)	_____	10	_____
Term paper (team)	_____	100	_____
Presentation (team)	_____	100	_____
Self-critique	_____	30	_____
Peer evaluation (avg)	_____	10	_____
TOTAL		650	_____

GRADING SCALE:

95 -100	A	76 - 78	C
92 - 94	A-	73 - 75	C-
89 - 91	B+	70 - 72	D+
86 - 88	B	67 - 69	D
83 - 85	B-	64 - 66	D-
79 - 82	C+	00 - 63	F

Instructor: _____
Phone: Office: (231) 591-2361 Fax: (231) 591-5982 Home: _____
E-Mail: _____
Office: Automotive Center 103
Office Hours: _____ (or by appointment)

COURSE DESCRIPTION:

Identification of product failure and the interaction required between the customer, dealer, and the manufacturer to achieve acceptable solutions to field problems. Includes a review of warranty and field reports.

Required Resources & Materials:

Resources:

The Gregg Reference Manual, by William A. Sabin
How to Win Friends and Influence People, by Dale Carnegie, Pocket Books, Revised Edition
The Evolution of Traditional Service Departments, by Terry L. Carlisle and Forrest Vanderwall, Atcon

Materials:

- **3 Ring Notebook (8.5" x 11")**
- **"High-Liter"**
- **Blank VHS Tape**
- **Collegiate Dictionary**

Attendance:

Attendance of all class sessions is required. In the event of an absence, prior notification is strongly advised. An excused absence will require a professionally typed memorandum to be delivered to the instructor on the next business day following the absence. If you are unable to deliver the memorandum in person, it is acceptable to leave it in the Automotive Center Office (AC-101). All absence memorandums will be reviewed by the instructor at the end of the semester to determine if the absence is excused or unexcused.

The third and all subsequent unexcused absences will reduce the final grade (overall percentage) by two percentage points each. Three tardies shall equal one unexcused absence.

A medical excuse (Doctor's Note), in addition to a memorandum, is the only way a student may make up an exam.

You are responsible for any lecture material that is missed, as well as any assignments that were given during an absence. All assignments are to be turned in on the due date. Any assignments that are late will have 10% deducted from the grade for every business day past the due date. You must be current in all assignments to be able to take the next unit test. A failing grade for the course will be given if all assignments are not turned in at least one class day before the end of the semester.

Two Tests---------- 40%
Written Assignments---------- 20%
Oral Presentation---------- 20%
Written Project---------- 20%
Class Participation---------- +/- 5%

Grading Scale:

95 - 100 = A	76 – 78 = C
92 – 94 = A-	73 – 75 = C-
89 – 91 = B+	70 – 72 = D+
86 – 88 = B	67 – 69 = D
83 – 85 = B-	64 – 66 = D-
79 – 82 = C+	0 - 63 = F

Each test, assignment, presentation, and term project will receive a number grade. Your final grade will be based on the percentage of the total points you achieve using the above scale.

AHM 404 Written Assignments:

1. Legal Case Review: Implied or Express Warranty
2. Book Review of "How to Win Friends and Influence People" by Carnegie
3. Field Inspection Report to include digital photos (4) of a failed component.
4. Self-Critique of the oral presentation (Memorandum format)
5. Thank you letter/s for Term Project interviews.

With the exception of the thank you letters and the self-critique, each of the first three written assignments shall be submitted in the standard AHM Synopsis/Critique format, 3-5 typewritten, double spaced pages, including the plagiarism statement. Submit two copies of each assignment with the exception of the thank you letters.

AHM 404 Term Project Topics:

- Motorcycle Manufacturer
- Pleasure Boat Manufacturer
- Agricultural Equipment Manufacturer
- Construction Equipment Manufacturer
- Heavy Truck Manufacturer
- Motor Home Manufacturer
- Domestic Passenger Car Manufacturer
- Asian Passenger Car Manufacturer
- European Passenger Car Manufacturer

Oral Presentation and Written Term Project:

The project will consist of a complete investigation of an actual warranty case assigned from those listed above. This project will include:

- A dealer contact
- A contact with the appropriate manufacturer's representative (phone contact if necessary)
- Copies of repair orders, warranty claims, and any other supporting documentation

- A complete description of the entire process from the initial complaint to the final resolution of the problem and reimbursement by the manufacturer

- Parts handling, mark-up and retention

- Warranty payment process and document retention requirements

Purpose of the Project:

To learn about the various vehicle manufacturer's warranties, to better understand the administration of warranty claims from the franchisee (dealer) perspective, and to prepare a professional quality technical report.

Requirements for Oral Presentation:

- The oral presentation will be 10-15 minutes long and will be delivered from an outline. The presentation will be video taped (VHS tape to be provided by the presenter)

- At least two different forms of visual aids such as charts, slides, overheads, failed part(s), or computerized graphics are required for the presentation. (MS Power Point)

- Business attire.

- The presentation should be supported by an example of the claim and by pictures of the failed part/component.

- The presentation should include the all of the activities whether the setting is in a dealership or at the manufacturer level.

Requirements for the Written Project:

- The quality of the report should be acceptable as an industry technical report.

- Have a minimum of ten pages, double-spaced, 12pt font maximum.

- The project should include:
  - -Four digital, instant developing or 35mm pictures inserted into the text/body of the report.
  - -Copies of support documents such as Repair Orders, Parts Department Documents, Manufacturer Warranty Forms, and Claim Payment Verification.

- Spelling, grammar, and punctuation must be accurate and correct throughout the project.

- Be your own work.

- The format must follow the examples given in *Sabin's* , The Gregg Reference Manual, and the AHM format handout.

Major Sections of the Term Project:

- **Title Page – Follow the *Academic Report* format in The Gregg Reference Manual**
- **Letter of Transmittal – As the second page of your report, this letter should be in "Block Style" without indented paragraphs. Include the standard AHM plagiarism statement as the last sentence of your letter. Type the word "Enclosure" two lines below your typed signature at the left margin.**
- **Table of Contents – Free format, but include one.**
- **Body- Include an "Introduction" which describes your project, the items to be covered, as well as a "Conclusion" which sums up the process that you have described.**
- **References – Use "REFERENCES" as your heading and follow the format outlined in the AHM format handout.**
- **Appendix – When you refer to supporting documents in the body of the paper, include a appendix with each item labeled as Article 1, Article 2, etc... When making reference to these articles, note them as "(see Appendix, Article 1)".**
- **Field Inspection Report - As the final element of your paper, include a copy with the digital images inserted and a description of the component listing the complaint, cause, and correction of the failure or defect.**

AHM 450
AUTOMOTIVE MATERIALS

Instructor: _____
Office: Automotive Center 103
Phone: (Office) 591-2361 (Home)_____ (Fax) 591-5982
E-Mail: _____
Office hours _____ (or by appointment)

COURSE DESCRIPTION

This is a survey type course designed to give the student an overview of the materials, fuels, and lubricants used in the automotive, heavy equipment and trucking industries. Also included are topics covering environmental concerns and alternative energy sources.

TEXTS

Gregg Reference Manual (for all AHM classes)
Changes in Gasoline III, 1996
Metals, Fibers, and Materials, Motorbooks Intl.
You are the Message, roger Ailes. Currency Doubleday

ATTENDANCE

There is no reason for absences without prior notification. An excused absence requires a professionally typed memorandum delivered to the instructor by the first day you are back in class. You may also leave it in the automotive office at A-C 101. The instructor will review the memo, at the end of the semester to determine if the absence is excused or unexcused. **ALL** absences must have a memorandum before the instructor can excuse any absence.

The third, and all subsequent unexcused absences reduces the student's final grade (overall percentage) by 2.00 points. Three tardies equal one unexcused absence.

A medical excuse, in addition to the memorandum is the only way a student can make up an exam.

The student is responsible for any lecture material that is missed, as well as any assignments made, during any absence.

OTHER CRITERIA

ALL ASSIGNMENTS MUST BE TURNED IN ON TIME (start of class time)! Ten percent of maximum grade is deducted every business day the assignment is late, whether the absence is excused or not. The student must be current in all assignments to take the next exam. A final grade of F is earned if all assignments are not turned in one class day before the end of the semester. PERIOD!

Safety glasses are required for all tours. Any missed tour must be made up by doing a written project (at least six pages long), including a personal industry interview.

Plagiarism in any form can result in a final of F for the course. ALL ASSIGNMENTS must include a signed plagiarism statement. ALL ASSIGNMENTS must include a second copy of the work for the instructor's file, unless changed by the instructor.

GRADING SCALE

95 - 100	A	76 - 78	C
92 - 94	A-	73 - 75	C-
89 - 91	B+	70 - 72	D+
86 - 88	B	67 - 69	D
83 - 85	B-	64 - 66	D-
79 - 82	C+	00 - 63	F

INSTRUMENT	DUE DATE	POINTS AVAILABLE	POINTS RECEIVED
Test 1 (open book)	_____	100	_____
Test 2 (open book)	_____	100	_____
Test 3 (open book)	_____	100	_____
Book report	_____	50	_____
Review #1 (clean air)	_____	30	_____
Review #2 (non-metal)	_____	30	_____
Presentation outline	_____	10	_____
Thank you	_____	10	_____
Presentation	_____	100	_____
Time guideline	_____	10	_____
Group coordination	_____	10	_____
Peer evaluation	_____	10	_____
Self-critique	_____	30	_____
TOTAL		590	_____

SECTION 10

ENROLLMENT TRENDS

INTRODUCTION

Enrollment trend data was gathered from multiple sources. The Ferris State University "Fact Book," authored by Office of Institutional Research, a division of Student Affairs, is quoted frequently. Chuck Matrosic, Assistant Dean, College of Technology helped interpret numbers and provided some data as well. Greg Key, Department Chair of the newly formed Automotive Department, also provided data necessary to complete this section.

The data is broken into two segments for analysis purposes. The main section is on-campus enrollment. The AHM program also has a presence in Southeast Michigan (currently at Macomb Community College's University Center).

As these numbers are discussed the reader must keep in mind that a capacity has been established, by the College of Technology (COT), at 80 students. This number has remained stable through the periods discussed, namely the 1995-1996 school year through the 1999-2000 school year.

DATA ANALYSIS

Off-campus enrollment has been stable since the program started in 1996. This group is about ready to graduate and another group is being recruited for the winter, 2001 semester. This data is found in the "ADMINISTRATIVE PROGRAM REVIEW; 1999" document, located at the end of this section. It is produced by the College of Technology (COT).

On-campus enrollment numbers are compared year to year, starting in academic year 1995-1996. Please see figure 1. It is hard to see a trend as the highest enrollment was in 1996-1997 (84 students), and the lowest enrollment figures are from the academic years 1997-1998 and 1998-1999 (66 students).

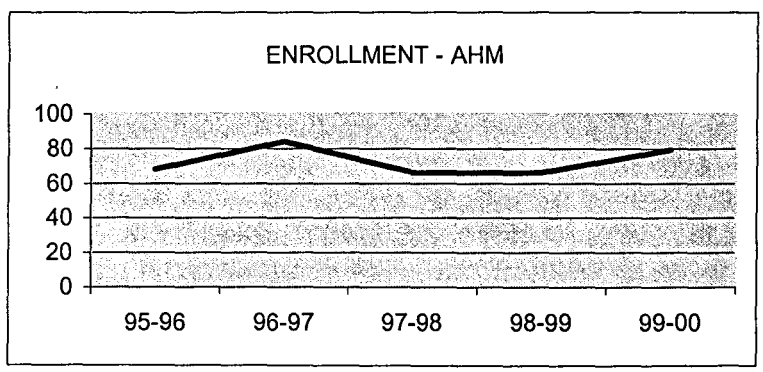

Figure 1

Another comparison is made in relation to external forces upon the Automotive and Heavy Equipment Management program (AHM). The events discussed are: "Fiscal Restructuring," the introduction of other four-year bachelor degree programs and the inception of new two-year "corporate" programs.

In the fall of 1993 Ferris State University started what we now refer to as "Fiscal Restructuring." Auto Machine Technology and Auto Body were targeted as programs to be 'reviewed.' Both two-year programs were feeders into AHM. AHM enrollment, fall 1993, was at 118 students. Auto Machine Technology started 22 students that same fall. That program was closed in May 1995.

In fall of 1996 the Heavy Equipment Service Engineering Technology four-year program started. The feeder program was, and still is, the same one that AHM uses, Heavy Equipment Technology, a two-year program. Heavy Equipment Service Engineering Technology started 18 students that fall.

In the fall 1999 semester, the two-year Automotive Service Technology faculty proposed another path for their two-year graduates to pursue, Automotive Engineering Technology. It was recently approved by the Board of Control.

Before 1996 two-year students in the Automotive and Heavy Equipment programs had only three options, AHM, Education or Small Business. There was only one option in the College of Technology, AHM. Students now have five paths they can pursue. Three of these paths are in the College of Technology:

Automotive and Heavy Equipment Management
Heavy Equipment Service Engineering Technology
Automotive Engineering Technology

In the fall 1988 quarter Ferris State University's Automotive Department started a new program, sponsored by General Motors, in its two-year Automotive Service Technology area. The check sheet is basically the same as the original "comprehensive" program, except students receive hands-on experience through a co-op experience in a GM dealership, rather than a service lab held on campus. This program is intended to start 20 students every year.

Ford Motor Company's program started in the fall 1991, while Chrysler's co-op program started in the fall of 1996. These two programs start 20 students, every other year, alternating their start dates every other fall. The students in all three corporate programs are attending Ferris to become technicians, graduating with an associate's degree.

The previous discussion is not intended to be a critical analysis of what others have done on campus. Common sense dictates that when students are offered more choices, in similar programs, enrollment numbers in existing programs will be affected. AHM enrollment has remained stable the past five years, even with increased competition for the same students.

Program/Department: **Automotive & Heavy Equip Management (AHM)/Transportation and Electronics Department**
Date Submitted: _____ Dean: **_George Waldheim**_____

Please provide the following information:

Enrollment

	Fall 1995	Fall 1996	Fall 1997	Fall 1998	Fall 1999
Tenure Track FTE	2	2	2	3	3
Overload/Supplemental FTEF	.33	.33	.5	.33	.33
Adjunct/Clinical FTEF (unpaid)					
Enrollment on-campus total*	68	86	81	66	79
Freshman					1
Sophomore	1		1		1
Junior	32	46	21	28	27
Senior			44	38	50
Masters					
Doctoral					
Pre-Professional Students					
Enrollment off-campus*		18	15	17	14
Traverse City					
Grand Rapids					
Southwest					
Southeast					14

*Use official count (7-day)

Capacity:
Estimate program capacity considering current number of faculty, laboratory capacity, current equipment, and current levels of S&E.

___80_____students

Financial

Expenditures*	FY 95	FY 96	FY 97	FY 98	FY 99
Supply & Expense	7,366	12,616	14,431	9,289	14,187
Equipment					
Voc. Ed. Funds					
General Fund		8,000	25,000	3,720	3,708
In-Kind					
Non-General Fund					
Revenues					
Clinic Income					
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Gifts, Grants & Cash Donations					

*Use end of fiscal year expenditures.

Other

	AY 94/95	AY 95/96	AY 96/97	AY 97/98	AY 98/99
Number of Graduates* - Total	37	31	36	33	23
- On campus	37	31	36	33	23
- Off campus					
Placement of Graduates	90%	90%	92%	96%	96%
Average Salary	28,100	30,000	32,000	34,833	36,743
Productivity - Academic Year Average	334	419	420	336	352
- Summer					
Summer Enrollment	39	37	38	54	55

* Use total for academic year (S, F, W)

1. a) Areas of Strength:

- Well-qualified faculty with strong industry background
- Students are in high demand with excellent placement and competitive wages
- An updated curriculum with P/C skills focus
- Obtained state-of-the-art hardware in the computer lab, AC-104
- Have good industry support

b) Areas of Concern and Proposed Action to Address Them:

- Need to increase student enrollment. Have requested additional aid, i.e., recruitment specialist from the COT to aid in this. Will also increase site visits for those potential students. Offering a 0 + 4 option may aid in this.
- Offer an additional, less technical, AHM option of 0+4. This is currently being proposed.
- Decrease internal funding

2. Future goals (please give time frame)

- Increase recruitment efforts at Michigan and midwest feeder schools.
- Process and implement a 0 + 4 program option Fall 2000/Winter 2001
- Continue to work every angle to obtain funding for program operation and growth both internally and externally.

3. Other Recommendations:

4. Does the program have an advisory committee? Yes

a) **If yes, when did it last meet?** March 24, 1999

b) **If no, why not? By what other means do faculty receive advice from employers and outside professionals?**

5. **Does the program have an internship or other cooperative or experiential learning course?** Yes

a) **If yes, is the internship required or recommended?** Requirement

b) **If no, what is the reason for not requiring such an experience?**

6. **Is this a program with national recognition?** Yes

a) **If so, for what and by whom?** Students are aggressively recruited by several national corporations who come to our campus.

b) **If not, what are some strategies that could lead to national recognition?**

SECTION 11

PROGRAM PRODUCTIVITY & COSTS

INTRODUCTION

Data for this section was collected from a number of sources. Productivity data was found in the "Productivity Report," authored by the Office of Institutional Research, a division of Student Affairs. Cost data was also received from the Office of Institutional Research. The "ADMINISTRATIVE PROGRAM REVIEW; 1999" document was produced by the Dean's office in the College of Technology (COT), and can be found at the end of this section.

Two measures are used in this analysis, productivity and cost. Productivity compares Student Credit Hours generated, by course prefix, divided by Full Time Equated Faculty in the program measured. The higher the number, the more productive the program/college/university is, mathematically.

The other measure, cost is calculated by using actual instructor salaries plus benefits (also includes dept. and dean's office S & E, prorated). That dollar amount is then divided by the number of Student Credit Hours generated in the courses taught in the program. Consideration is taken for release time, overload situations and summer loads. The lower the dollar figure, the more cost effective the program is.

DATA ANALYSIS

Data related to the Automotive and Heavy Equipment Management program (AHM) is analyzed a couple different ways. Please see figure 1.

Average productivity of the AHM program for the 1999-2000 school year was 386.49 Student Credit Hours / Full Time Equated Faculty (SCH/FTEF). This compares to the College of Technology's average of 331.62 SCH/FTEF. Ferris State University's overall average is 454.53 SCH/FTEF. AHM is ranked tenth out of 28 programs in the College of Technology. Nine programs are more productive, while 18 are less productive. This is probably a better comparison, than comparing AHM to the university as a whole. The College of Technology strives to keep class size low for more interaction between student and instructor. There are also many courses in the College of Technology that are lab intensive.

UNIT	PRODUCTIVITY (SCH/FTEF)	COST (TOTAL COST/ SCH)
FSU	454.53	$ 182.90
COT	331.62	$ 214.03
AHM	386.49 (10/28)	$ 170.25 (27/32)

Figure 1

The total average cost of the AHM program is $170.25 per Student Credit Hour generated. Please see the chart on the previous page, along with the report following this discussion labeled "COLLEGE OF TECHNOLOGY; DEGREE PROGRAM COSTS; 1998 – 1999." Ferris State University's total average cost per Student Credit Hour generated is $182.90, putting AHM below the mean, in terms of cost. AHM is ranked 97th out of 183 programs on campus. The lower the dollar amount, the lower the cost. The AHM program is also below the median.

The College of Technology's total average cost is $214.03 per Student Credit Hour generated. AHM ranks 27th out of 32 degree programs. The higher the ranking the lower the cost, actually placing AHM in the top five in terms of low cost programming. Program numbers are approximate due to multiple type programs being very similar, ie. certificates and corporate type programs that are listed separately on the accompanying chart.

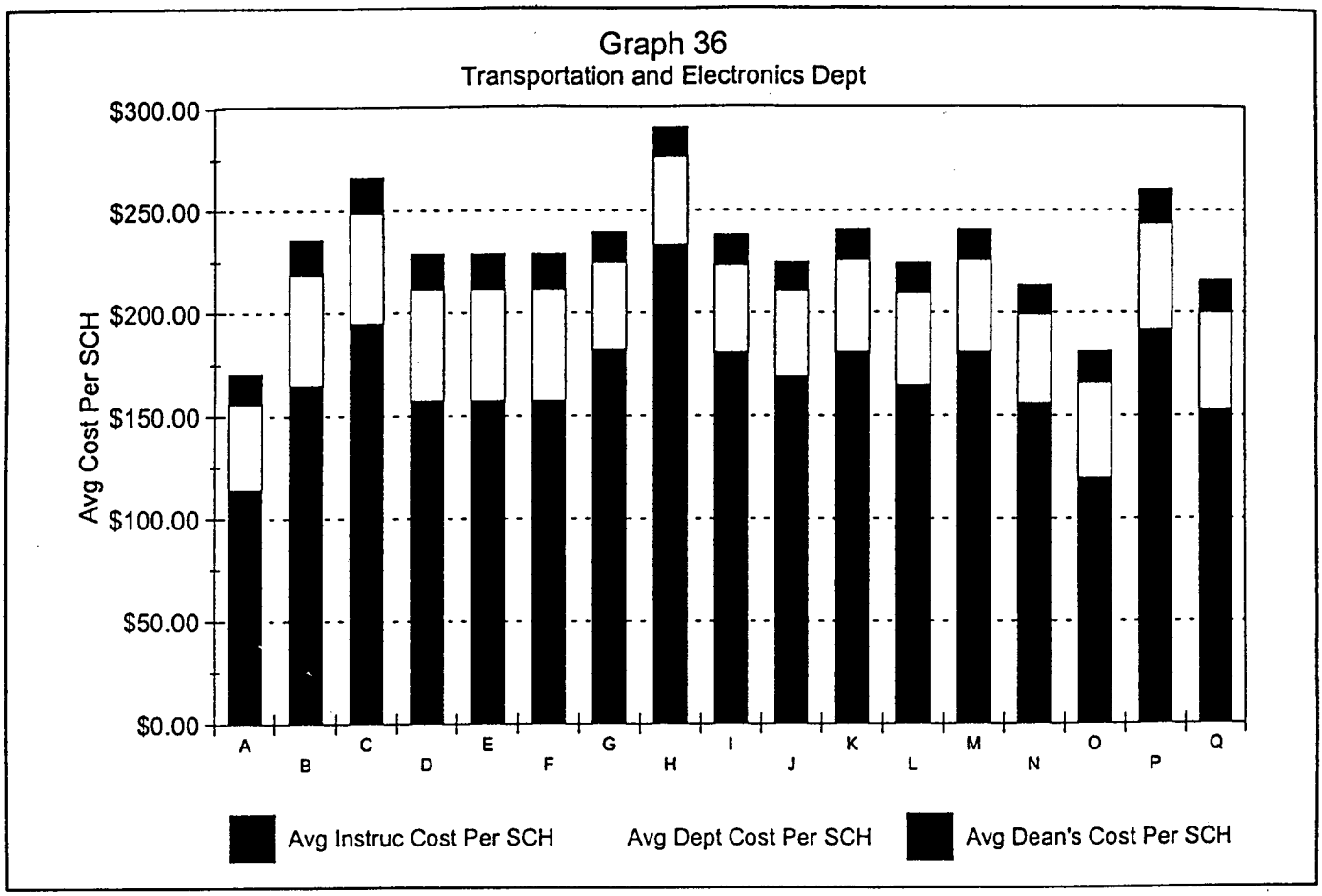
The Transportation and Electronics Department, in May 2000, was regrouped into three separate departments: Automotive, where the AHM program is housed, Electronics and Computer Networks, and Heavy Equipment. For this report, though data was used from the 1998-1999 school year, when the three departments were still in one department, Transportation and Electronics. AHM had the lowest cost of any program in the department. Please see the report that follows this discussion labeled "AVERAGE INSTRUCTOR, DEPARTMENT AND DEAN'S COST PER SCH FOR DEGREE PROGRAMS; TRANSPORTATION AND ELECTRONICS DEPARTMENT; 1998 – 1999 DATA."

College of Technology
Degree Program Costs
1998-1999

Program	Total Cost per SCH	Rank (Total - 183 Programs)
Optometry	$561.00	1
Quality Technology Certificate	340.82	8
Printing & Digital Graphic Imaging Technology AAS	313.91	11
Computer Networks & Systems BS (Embedded Systems)	289.91	15
Automotive Service Technology AAS	265.56	17
Heavy Equipment Technology AAS	259.75	18
Manufacturing Engineering Technology BS (Yrs 3 & 4)	248.74	22
Elect/Electron Engr Tech BS (Yrs 3 & 4) (Communications)	240.24	24
Elect/Electron Engr Tech BS (Yrs 3 & 4) (Indust Automation)	240.24	25
Computer Networks & Systems BS (Communications)	238.77	26
Computer Networks & Systems BS (Indust Automation)	237.44	27
Automotive Body AAS	235.28	28
Technical Drafting and Tool Design AAS	232.06	31
Quality Engineering Technology BS (Yrs 3 & 4)	229.44	32
Plastics Engineering Technology BS (Yrs 3 & 4)	229.14	33
Automotive Service Technology AAS (Ford ASSET)	228.21	34
Automotive Service Technology AAS (General Motors ASEP)	228.21	35
Automotive Service Technology AAS (Chrysler CAP)	228.21	36
Manufacturing Tooling Technology AAS	224.86	41
Computer Networks & Systems BS (Information Systems)	224.34	42
Elect/Electron Engr Tech BS (Yrs 3 & 4) (Digital)	223.85	44
Welding Technology AAS	223.22	45

Industrial Electronics Technology AAS	215.40	48
Facilities Management BS (Yrs 3 & 4)	214.88	49
Surveying Engineering BS	214.56	50
College of Technology Average	214.03	
Heavy Equipment Service Eng Tech/Maint Opt BS (Yrs 3 & 4)	213.13	51
Architectural Technology AAS	210.00	52
Surveying Technology AAS	201.57	60
Advanced Construction Management Certificate	201.24	61
Mechanical Engineering Technology AAS	196.26	65
HVACR Technology AAS	192.95	69
Product Design Engineering Technology BS (Yrs 3 & 4)	191.17	71
Welding Engineering Technology BS (Yrs 3 & 4)	189.83	74
Rubber Engineering Technology BS (Yrs 3 & 4)	189.14	76
Plastics Technology AAS	184.70	80
FSU Average	182.90	
Heavy Equipment Service Eng Tech/Mfg Opt BS (Yrs 3 & 4)	180.83	88
HVACR Engineering Technology BS (Yrs 3 & 4)	180.00	89
Median	176.48	
Rubber Technology AAS	175.94	93
Construction Field Engineering Certificate	173.79	95
Automotive and Heavy Equipment Mgt BS (Yrs 3 & 4)	**170.25**	**97**
Civil Engineering Technology AAS	169.57	99
Construction Administration Certificate	166.07	105
Printing Management BS (Yrs 3 & 4)	165.00	108
Construction Management BS from Arch Tech (Yrs 3 & 4)	163.77	110
Building Construction Technology AAS	162.40	112
Construction Management BS (Highway/Bridge Track)	161.09	117
Construction Management BS (Commercial/Industrial Track)	157.61	122
Pre-Science AS	109.89	183

Ferris State University
Average Instructor, Department and Dean's Cost Per SCH for Degree Programs
Transportation and Electronics Department
1998 - 1999 Data



	Programs	Avg Instructor Cost/SCH	Avg Dept Cost/SCH	Avg Dean's Cost/SCH	Total Avg Cost/SCH
A	Automotive and Heavy Equipment Mgt BS (Yrs 3 & 4)	$114.33	$41.62	$14.29	$170.25
B	Automotive Body AAS	$165.02	$53.17	$17.09	$235.28
C	Automotive Service Technology AAS	$194.84	$53.38	$17.33	$265.56
D	Automotive Service Technology AAS (Chrysler Apprentice opt)	$157.50	$53.38	$17.33	$228.21
E	Automotive Service Technology AAS (Ford ASSET opt)	$157.50	$53.38	$17.33	$228.21
F	Automotive Service Technology AAS (General Motors ASEP opt)	$157.50	$53.38	$17.33	$228.21
G	Computer Networks & Systems BS (Communications Track)	$181.94	$42.46	$14.36	$238.77
H	Computer Networks & Systems BS (Embedded Systems Track)	$233.09	$42.46	$14.36	$289.91
I	Computer Networks & Systems BS (Indust Automation Track)	$180.62	$42.46	$14.36	$237.44
J	Computer Networks & Systems BS (Information Systems Track)	$169.06	$41.16	$14.12	$224.34
K	Elect/Electron Engr Tech BS (Yrs 3 & 4) (Communications)	$180.75	$44.71	$14.78	$240.24
L	Elect/Electron Engr Tech BS (Yrs 3 & 4) (Digital)	$164.91	$44.17	$14.78	$223.85
M	Elect/Electron Engr Tech BS (Yrs 3 & 4) (Indust Automation)	$180.75	$44.71	$14.78	$240.24
N	Heavy Equipment Service Eng Tech/Maint Opt BS (Yrs 3 & 4)	$156.28	$42.46	$14.38	$213.1[illegible]
O	Heavy Equipment Service Eng Tech/Mfg Opt BS (Yrs 3 & 4)	$119.99	$45.98	$14.86	$180.83
P	Heavy Equipment Technology AAS	$191.88	$51.19	$16.68	$259.75
Q	Industrial Electronics Technology AAS	$153.04	$46.63	$15.74	$215.40

ADMINISTRATIVE PROGRAM REVIEW: 1999

Program/Department: **Automotive & Heavy Equip Management (AHM)/Transportation and Electronics Department**
Date Submitted: _____ Dean: **_George Waldheim**_____

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Average Salary	28,100	30,000	32,000	34,833	36,743
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Summer Enrollment	39	37	38	54	55

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- Have good industry support

b) Areas of Concern and Proposed Action to Address Them:

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- Offer an additional, less technical, AHM option of 0+4. This is currently being proposed.
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2. Future goals (please give time frame)

- Increase recruitment efforts at Michigan and midwest feeder schools.
- Process and implement a 0 + 4 program option Fall 2000/Winter 2001
- Continue to work every angle to obtain funding for program operation and growth both internally and externally.

3. Other Recommendations:

4. Does the program have an advisory committee? Yes

a) **If yes, when did it last meet?** March 24, 1999

b) **If no, why not? By what other means do faculty receive advice from employers and outside professionals?**

5. **Does the program have an internship or other cooperative or experiential learning course?** Yes

a) **If yes, is the internship required or recommended?** Requirement

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6. **Is this a program with national recognition?** Yes

a) **If so, for what and by whom?** Students are aggressively recruited by several national corporations who come to our campus.

b) **If not, what are some strategies that could lead to national recognition?**

SECTION 12

CONCLUSIONS

CONCLUSIONS

The AHM Program Review Panel has concluded that the AHM program is a stable, inexpensive, productive program in the College of Technology. The following are the highlights from the review process:

• Centrality to FSU mission	The AHM program provides career oriented technological AND professional education using multiple innovative teaching techniques.
• Uniqueness and visibility	The AHM program is the only one of its kind in the state of Michigan. There are six somewhat similar programs in the nation that most major manufacturers recruit from, but Ferris State's AHM program is unique in its approach.
• Service to state and nation	The majority of manufacturers, nationally, visit campus on a regular basis to recruit and hire AHM graduates and interns.
• Demand by students	AHM draws from a number of two-year programs on campus and enrollment has been stable the past five years. As other four-year programs become available to graduates of the same two-year feeder programs, student numbers could decline.
• Quality of instruction	Alumni, employer and student surveys, along with faculty perceptions rate the quality of instruction as exceptional.
• Demand for graduates	Based on placement surveys and the number of on-campus recruiting visits by employers, the demand for AHM graduates exceeds supply.
• Placement rate/salaries	The most current placement rates show AHM placement at 96 %. The average starting salary increased 21.3 % between 1996 (approx $ 31,500) and 1999 ($ 38,200).

- Service to non-majors

At the present time the AHM program does not service any other major. All students in AHM classes are AHM majors.

The new four-year Automotive Engineering Technology program uses one class from the AHM program, AHEM 450. Students must also choose one option consisting of four classes, Manufacturing, Diesel or AHM.

An AHM minor for College of Business students is being developed.

- Facilities and equipment

The AHM program has been fortunate to seek and receive industry funding to supply and maintain a state-of-the-art computer lab and instructional equipment, along with a vehicle for intern visits and recruiting.

An on-going concern is insufficient S & E funding, especially as expensive technology is constantly coming on line.

- Library resources

With an ever growing WWW presence, information has become easier and easier to obtain. The downside is that because S & E funding is insufficient, subscriptions to industry publications have been reduced. On the positive side, the AHM faculty are looking forward to a close working relationship with library staff as FLITE comes on line, especially in terms of subscriptions and technology.

- Cost

AHM is very cost effective. The program is the most cost effective in its department. It is in the top quarter of all College of Technology programs and in the top half of all programs at Ferris State University.

• Professional/scholarly activities	All AHM faculty have benefited from learning and using current PC software, including WebCT, Word, PowerPoint, Excel, E-mail, and live Internet searches, to support classroom activities. All faculty stay current through their many industry visits, made personally through internship travel and other industry contacts. AHM faculty attended NADA (National Automobile Dealers Association) conferences and seminars on a regular basis, through January 1998. Insufficient S & E funding has since curtailed these activities. Professional development should be addressed as soon as possible, before faculty lose their cutting edge.
• Administration effectiveness	For the past six years this program had a program coordinator. This position was eliminated in the most recent College of Technology restructuring. The AHM program faculty are genuinely concerned about future department leadership not having an adequate understanding of the program for maximum growth potential.

In summary these are the strengths and concerns of the Automotive and Heavy Equipment program at Ferris State University. Most of these conclusions correlate well with the College of Technology's "ADMINISTRATIVE PROGRAM REVIEW; 1999" document found at the end of this section.

STRENGTHS

- High demand for graduates

- High placement rates

- High starting salaries

- Industry support
  - -General funding
  - -Scholarship support (over $ 12,000 annually)
  - -Transportation (donated 1994 Toyota)

- Industry reputation and image

- High productivity

- Low cost

- Qualified and dedicated faculty with many years of industy experience

CONCERNS

- Enrollment trends
  - -Numerous four-year programs recruiting from same two-year feeder programs
  - -Lack of resources for programmatic recruiting efforts
  - -Southeast Michigan program

- Adequate funding to maintain a technological and competitive edge

Program/Department: **Automotive & Heavy Equip Management (AHM)/Transportation and Electronics Department**
Date Submitted: _____ Dean: **George Waldheim**

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SECTION 13

RECOMMENDATIONS

RECOMMENDATIONS

There are a number of recommendations the PRP feel should be implemented concerning the AHM program. These are based on recent surveys, evaluations and many discussions with personnel close to the AHM program. These recommendations also closely follow the ADMINISTRATIVE PROGRAM REVIEW; 1999" document, which is at the end of this discussion. The list below is ranked in priority order:

1) It is clearly evident that enrollment is tied to recruiting efforts at the program level. Thirty three percent of all AHM students heard about the program from their two-year technical faculty. Thirty eight percent of all AHM students heard about Ferris State University from their high school technical instructors. These relationships must be nurtured and improved. Funding and release time needs to be available to properly accomplish these activities, along with building and maintaining a web presence. Alumni can be used as a recruiting tool, as 94 % of graduates responding indicated they would recommend AHM to prospective students.

2) As student images of a program can reflect directly on enrollment numbers, the technology issue must be dealt with. Most experts have established a three-year PC rotation schedule as a minimum standard. Fourteen student lab PCs, five instructional PCs, two scanners, two laptops, two PC projectors, two digital cameras, one video recorder, one TV / VCR unit plus the miscellaneous software and supplies equals approximately $ 54,000. To stay current the program needs approximately 1/3 this amount on an annual basis, or $ 18,000.

3) As industry needs change, or new four-year programs are developed, the AHM program must adjust accordingly. Three areas that need immediate attention are:

    a. Complete minor program revisions
    b. Add new minor for College of Business students
    c. Implement new four-year less technical program option

4) A professional development budget should be established allowing AHM faculty to again attend national conferences, to stay current on industry trends. Based on past practice the PRP recommends this budget be established at $1,500 per faculty member on an annual basis.

Based on these findings, the PRP recommends that the AHM program receive the ENHANCED rating from the Academic Program Review Council. AHM is a strong program for this university, and these recommendations can only help improve our national prominence.

Program/Department: **Automotive & Heavy Equip Management (AHM)/Transportation and Electronics Department**
Date Submitted: _____ Dean: **_George Waldheim_____**

Please provide the following information:

Enrollment

	Fall 1995	Fall 1996	Fall 1997	Fall 1998	Fall 1999
Tenure Track FTE	2	2	2	3	3
Overload/Supplemental FTEF	.33	.33	.5	.33	.33
Adjunct/Clinical FTEF (unpaid)					
Enrollment on-campus total*	68	86	81	66	79
Freshman					1
Sophomore	1		1		1
Junior	32	46	21	28	27
Senior			44	38	50
Masters					
Doctoral					
Pre-Professional Students					
Enrollment off-campus*		18	15	17	14
Traverse City					
Grand Rapids					
Southwest					
Southeast					14

*Use official count (7-day)

Capacity:

Estimate program capacity considering current number of faculty, laboratory capacity, current equipment, and current levels of S&E.

___80_____students

Financial

Expenditures*	FY 95	FY 96	FY 97	FY 98	FY 99
Supply & Expense	7,366	12,616	14,431	9,289	14,187
Equipment					
Voc. Ed. Funds					
General Fund		8,000	25,000	3,720	3,708
In-Kind					
Non-General Fund					
Revenues					
Clinic Income					
Scholarship Donations				8,500	12,500
Gifts, Grants & Cash Donations					

*Use end of fiscal year expenditures.

Other

	AY 94/95	AY 95/96	AY 96/97	AY 97/98	AY 98/99
Number of Graduates* - Total	37	31	36	33	23
- On campus	37	31	36	33	23
- Off campus					
Placement of Graduates	90%	90%	92%	96%	96%
Average Salary	28,100	30,000	32,000	34,833	36,743
Productivity - Academic Year Average	334	419	420	336	352
- Summer					
Summer Enrollment	39	37	38	54	55

* Use total for academic year (S, F, W)

1. a) Areas of Strength:

- Well-qualified faculty with strong industry background
- Students are in high demand with excellent placement and competitive wages
- An updated curriculum with P/C skills focus
- Obtained state-of-the-art hardware in the computer lab, AC-104
- Have good industry support

b) Areas of Concern and Proposed Action to Address Them:

- Need to increase student enrollment. Have requested additional aid, i.e., recruitment specialist from the COT to aid in this. Will also increase site visits for those potential students. Offering a 0 + 4 option may aid in this.
- Offer an additional, less technical, AHM option of 0+4. This is currently being proposed.
- Decrease internal funding

2. Future goals (please give time frame)

- Increase recruitment efforts at Michigan and midwest feeder schools.
- Process and implement a 0 + 4 program option Fall 2000/Winter 2001
- Continue to work every angle to obtain funding for program operation and growth both internally and externally.

3. Other Recommendations:

4. Does the program have an advisory committee? Yes

a) **If yes, when did it last meet?** March 24, 1999

b) **If no, why not? By what other means do faculty receive advice from employers and outside professionals?**

5. **Does the program have an internship or other cooperative or experiential learning course?** Yes

a) **If yes, is the internship required or recommended?** Requirement

b) **If no, what is the reason for not requiring such an experience?**

6. **Is this a program with national recognition?** Yes

a) **If so, for what and by whom?** Students are aggressively recruited by several national corporations who come to our campus.

b) **If not, what are some strategies that could lead to national recognition?**

SECTION 14

APPENDIX

Michael A. Ropele

10835 Red Oak Ridge
Howard City, MI 49329
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Home Fax: 231/937-7151
Office: 231/591-2361
MICHAEL ROPELE@ferris.edu

EDUCATION

Candidate for a Master of Science Degree in **Career & Technical Education**, Ferris State University – Big Rapids, MI 49307. (coursework completed)

Bachelor of Science Degree in **Automotive and Heavy Equipment Technology**, May 1980, Ferris State University – Big Rapids, MI 49307.

Associate in Applied Science Degree in **Automotive Service Technology**, May 1978, Ferris State University – Big Rapids, MI 49307.

WORK EXPERIENCE

Associate Professor – Automotive and Heavy Equipment Management, Ferris State University, Big Rapids, MI, 8/93 to present. Teach courses in Automotive Marketing and Distribution, Dealership Accounting, Management of Fixed Operations, Management of Variable Operations, and Warranty & Customer Relations.

Program Coordinator – Automotive and Heavy Equipment Management, Ferris State University, Big Rapids, MI, 5/94 to 5/2000. In addition to a 50% teaching load, responsibilities included the following for both on-campus and off-campus programs: the supervising of faculty and support staff, curriculum management, scheduling, managing the budget, student advising, coordinating internship activities, interacting with industry, coordinating on-campus recruiting visits for employers, managing the Automotive Center Computer Lab, providing tours for prospects, recruiting, and coordinating summer orientation and registration.

Assistant Professor – Automotive and Heavy Equipment Management, Ferris State University, Big Rapids, MI, 9/88 to 8/93. Taught courses in Automotive Marketing and Distribution, Dealership Accounting, and Management of Fixed Operations. Also assisted in coordinating student internships, which are a required part of the curriculum.

Area Manager - Sales – Chevrolet Motor Division, General Motors Corporation, Central Office, Marketing Center - New York Branch, Warren, MI 48090, 8/87 to 8/88. Responsible for selling and distributing Chevrolet products to dealers in the greater New York City area. Coordinated sales incentive programs, business management related activities, customer satisfaction programs, and other activities to assist dealers in obtaining maximum market share.

Staff Specialist – Truck Merchandising - Chevrolet Motor Division, General Motors Corporation, Minneapolis Branch, 12/86 to 8/87. Was responsible for both technical sales support and the improvement of truck market share for the entire Branch. Worked directly with dealership advertising associations and Chevrolet Area Marketing (Chevrolet's regional marketing unit). Conducted salesperson training courses and organized ride & drives for all new product introductions. Coordinated all trade and RV shows in the eight-state area, including the 1987 Minneapolis Auto Show.

District Sales Manager/Area Service Manager (Special Dual Assignment) – Chevrolet Motor Division, General Motors Corporation, Minneapolis Zone, 2/86 to 12/86. Served as both a field sales and service representative and was responsible for a group of 30 dealers in Minnesota, Wisconsin and the Upper Peninsula of Michigan.

Area Service Manager – Chevrolet Motor Division, General Motors Corporation, Minneapolis Zone, 4/82 to 2/86. Worked as a factory service representative in the southeastern portion of Minnesota. Responsibilities included: customer satisfaction, warranty administration, technical assistance, training, recall campaigns, service merchandising, and analysis of fixed operations for a group of 38 dealerships.

Assistant Service Manager – Pauly Pontiac/GMC/Honda, Libertyville, IL, 11/81 to 4/82. Duties included interacting with customers and the supervision of both mechanical and body shop technicians; along with all of the estimates, warranty administration, and paperwork involved in the daily operation.

Service Advisor – Long Chevrolet, Inc., Elmhurst, IL, 5/79 to 8/79 and 6/80 to 11/81. Duties involved the writing and follow-up of repair orders, the preparation of estimates, customer relations, warranty administration, road tests, and the coordination of certain large fleet accounts.

FERRIS COMMITTEE/ADVISING ASSIGNMENTS

1997-98 Co-chair, Ferris' Distinguished Teacher Award Committee

1996-97 Committee member, Ferris' Distinguished Teacher Award Committee

1993-97 Was elected and served two terms on the Ferris Faculty Association Executive Board (Representative for the College of Technology)

1993-97 Served for five years on Ferris' College of Technology Sabbatical Leave Committee

8/96 Served on the search committee for the "Placement Coordinator" position.

10/95 Served on the search committee for the "Placement Specialist" position.

1991-97 Served six years as the co-advisor to Ferris' College of Technology Student Council, which sponsored the annual "Technical Symposium."

1988 - PRES. Faculty advisor to the Automotive & Heavy Equipment Management Student Organization (AHMSO)

PROFESSIONAL ACTIVITIES

5/2000 Took a 40-hour insurance class from Michigan State University which allowed me to take and pass the Michigan Property and Casualty Insurance License exam.

1994-98 Assisted with Ferris' annual "Autumn Adventure" high school student open house activity by working a booth providing information to prospective students on auto related programs.

1994-97 Presented an AHM program overview at the annual High School Counselor Technical Conference held on campus each fall semester.

10/97 Served on the planning committee of "Career Focus 97" – a Ferris internal recruiting event designed to assist students with their career choice.

1993-98 Received Ferris Timme Grants six years in a row which allowed me to attend the National Automobile Dealers' Association Convention and Trade Show each year.

1997 Coordinated the fund raising and production of a Ferris AHM program recruiting video.

2/97 Served as an external program reviewer for the Automotive Parts & Service Management Program at the University of Southern Colorado - Pueblo.

10/96 Coordinated the AHM program's 25th anniversary tailgate party on homecoming weekend.

10/96 Organized an event called "There's More Than Just Working as a Mechanic" which was a dinner meeting for all local high school and career center counselors and faculty to update them on 4-year auto career opportunities within our industry.

8/95 Reviewed/critiqued a book titled Advanced Financial for Service Departments for Applied Transportation Concepts, Inc. of Birmingham, AL.

MEMBERSHIPS & ORGANIZATIONS

Knights of Columbus - Council 1300 - Big Rapids, MI
President, Riverwood Forest Homeowner's Association
NACAT (North American Council of Automotive Teachers)
National Education Association
Michigan Education Association
Ferris Faculty Association

GREGORY DENNY
323 PERE MARQUETTE
BIG RAPIDS, MI 49307
(231) 796-1852

EXPERIENCE

Ferris State University 1988 - present
Big Rapids, MI 49307

PROFESSOR

Automotive & Heavy Equipment Management (AHM)
(1998 - Present)

Eliminate $300 student workbook by implementing Excel spreadsheet applications into AHM 303, Dealership Accounting. All worksheets and assignments are now in Excel format for student use.
Develop PowerPoint presentations for all courses taught:
- AHM 302
- AHM 303
- AHM 402
- AHM 450

Take over Program Coordinator duties (fall, 1999) for Mike Ropele, on sabbatical, then sick leave.

ASSOCIATE PROFESSOR

Automotive & Heavy Equipment Management (AHM)
(1993 - 1998)

Implement Excel spreadsheet applications into three courses:
- AHM 302
- AHM 303
- AHM 402

Orchestrated the donation of DEALERLINE XL software from EDS (Troy) and an IBM AS400 mainframe computer from Irwin Seating Co. (Grand Rapids); used in instructional and student lab activities.

ASSISTANT PROFESSOR

Automotive & Heavy Equipment Management (AHM)
(1989 - 1993)

Develop two new courses:
AHM 300 Automotive Dealership Computer Systems
AHT 400 Materials of Industry
Design and set up automotive computer lab.

Automotive Service (1989)

Supervise student work on customer vehicles (brakes and suspension service).

Heavy Equipment Service (1988 - 1989)

HES 203 Engine Repair
HES 272 Service Management

K & W Equipment 1987 - 1988
Manchester, MI 48178

SALES REPRESENTATIVE

- Sell utility construction equipment.
- Estimate and quote construction equipment overhauls.
- Implement computerized marketing program to include over 2,500 prospects and established customers.

Bitten Brothers, Inc. 1986 - 1987
Brighton, MI 48116

SERVICE MANAGER/SALES REPRESENTATIVE

- Supervise eight technicians in construction equipment dealer service area.
- Estimate and quote construction equipment repairs.
- Schedule customer repair work.
- Determine customer/warranty participation.
- Prepare warranty claims.
- Solve customer complaints.
- Communicate with factory engineering personnel on service related problems.
- Prepare and analyze computer generated reports concerning work-in-process, labor recaps, and profit/loss statements.
- Solicit new and established customers for machine sales.

Michigan Tractor and Machinery, Inc. 1985 - 1986
Novi, MI 48050

SERVICE COORDINATOR

- Develop service operation procedures.
- Train supervisory personnel on procedures, customer relations, warranty determination, and customer repair options.
- Research and recommend solutions to customer disputes.
- Schedule and quote service work.
- Update flat rate engine overhaul pricing structure.

FABCO Equipment, Inc. 1983 - 1985
Green Bay, WI 54305

TECHNICAL COMMUNICATOR/WARRANTY ADMINISTRATOR

- Research and provide answers to technical questions pertaining to Caterpillar engine (truck, marine, industrial) and electrical power generation products.
- Develop warranty reference book.
- Manage operation of warranty system.
- Conduct warranty claim preparation courses.
- Help design and develop computer generated warranty system.
- Determine manufacturer participation on post warranty failures, to include failure analysis, customer history, and marketing impact evaluations.
- Improve oil lab computer software to increase daily efficiency.
- Interpret oil sample results.

WARRANTY ADMINISTRATOR

Conduct warranty claim preparation classes for Caterpillar dealer personnel and authorized truck dealers, statewide.

Kellogg Community College 1981 - 1982
Battle Creek, MI 49016

TECHNICAL INSTRUCTOR

Engine Repair
Manual Transmissions
Suspension & Brakes
Basic Electronics

Waterford Kettering High School 1978 - 1979
Drayton Plains, MI 48020

AUTO MECHANICS INSTRUCTOR

Penske Racing 1978
Reading, PA 19608

TECHNICIAN

- Race engine preparation and testing.

McLaren Engines, Inc. 1975 - 1978
Livonia, MI 48152

TECHNICIAN

- Racing engine development.
- Test cell installation and maintenance.
- Race engine preparation and testing.

Classic Porsche Audi 1974
Kalamazoo, MI 49007

TECHNICIAN

EDUCATIONAL EXPERIENCE

Henry Ford High School 1966 - 1969
Detroit, MI 48219

HIGH SCHOOL DIPLOMA (June, 1969)
Outstanding Senior in the Industrial Education Department

Western Michigan University 1969 - 1974
Kalamazoo, MI 49001

BACHELOR OF SCIENCE DEGREE (June, 1974)

SECONDARY TEACHING CERTIFICATE (June, 1978)

Michigan State University 1981 - 1983
East Lansing, MI 48824

STATE OF MICHIGAN VOCATIONAL AUTHORIZATION
(September 1983)

Central Michigan University 1983 - 1986
Mt. Pleasant, MI 48858

MASTER OF ARTS: INDUSTRIAL EDUCATION (May, 1986)

Ferris State University 1980 - Present
Big Rapids, MI 49307

EVENING COLLEGE CREDITS

LAW 321	Contracts & Sales
MGT 261	Principles of Management
A-S 213	Electrical Circuits
A-S 202	Automatic Transmissions
RHA 181	Automotive Air Conditioning
A-S 102	Power Transmission Systems
H-E 125	First Aid
HES 206	Principles of Hydraulics
EDU 470	Topics in Education
EET 114	D. C. Circuits
EET 125	A. C. Circuits
EET 135	Digital Logic
PLT 489	Special Topics - Introduction to Plastics

CERTIFICATES/LICENSES:

Private Pilots License (1971)

National Institute for Automotive Service Excellence (NIASE): General Automobile Mechanic (1981)

State of Michigan: Motor Vehicle Mechanic Certificate (1983)

PROFESSIONAL ORGANIZATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)

- Member 1982 - 1997
- Attend approximately one to two section meetings per year.

EQUIPMENT MAINTENANCE COUNCIL (EMC)

- Member since 1989.
- Attended two day seminar on "Service into the Nineties" (1991 at Detroit Diesel; Detroit, Michigan)
- Organized and coordinated joint seminar between EMC and CIMA (Construction Industry Manufacturers Association) entitled "Strong Dealers and Smart Mechanics". (1990 at Clarion Conference Center)

NATIONAL ASSOCIATION OF COLLEGE AUTOMOTIVE TEACHERS (NACAT)

Member 1989 - 1991; 1998 - Present

Seminars attended:
- Reformulated Gasoline for the Nineties
- Sealants & Adhesives
- SMC Body Panel Repair Techniques
- HD Lubricants for the Nineties

Chair; Transportation Committee for NACAT 2000. Hired and scheduled eight part-time and volunteer bus drivers for week long conference.

Organize, coordinate and manage hospitality committee for NACAT 1990 Conference held at the Clarion Conference Center (1990).

Help staff AHM recruiting booth at NACAT 1990 Conference (1990).

VOCATIONAL INDUSTRIAL CLUBS OF AMERICA (VICA)

Judge annual high school/college skills contests:

- - Job Interviewing Techniques (1989)
- - Small Engine Repair (1981)

AMERICAN TECHNICAL EDUCATION ASSOCIATION (ATEA)

Presented a seminar titled "Use of the Computer in the AHM Program" at the 1990 Conference held at FSU.

Daniel R. Vander Woude

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Grand Rapids, MI 49546
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Home (616) 957-4630
Work (231) 591-2361

EXPERTISE **Automotive Technology/Management Training**

- **Management/Training Experience in the Automotive Industry and in Secondary and Post-Secondary Education**
- **Effective Use of Computer Technology for Training, Curriculum Design, and Record Keeping**
- **Strong Oral and Written Communication Skills**

EDUCATION

WESTERN MICHIGAN UNIVERSITY
Master of Arts, Vocational/Technical Education

WESTERN MICHIGAN UNIVERSITY
Bachelor of Science, Cum Laude, Industrial Education

CALVIN COLLEGE
General Studies and Psychology

SAN BERNARDINO VALLEY COLLEGE
Electronics and Computer Science

EXPERIENCE

FERRIS STATE UNIVERSITY
College of Technology
Big Rapids, Michigan

Assistant Professor **1998 to Present**
Automotive and Heavy Equipment Management, Teaching courses in Automotive Marketing and Distribution, Dealership Accounting, Management of Fixed Operations, Warranty Procedures and Customer Relations.

AMERICAN HONDA MOTOR COMPANY, INC.
Acura Division
Torrance, California

District Operations Manager **1996-1998**
Responsible for Acura Dealer Parts and Service department profitability, inventory management, sales training, and customer satisfaction performance.

AMERICAN HONDA MOTOR COMPANY, INC.
Acura Division
Torrance, California

District Technical Manager **1992-1996**
Responsible for Acura Dealer Parts and Service departments, administration of warranty claim processing, customer relations, dealer technical and administrative training needs.

Honors:
Ranked the #1 District Technical Manger in the nation for the Acura Division of American Honda Motor Company based on Acura dealer survey responses (1996).

Contributions:
♦Developed standardized dealer contact reports in Excel for use by district managers throughout the nation.
♦Conceived and implemented a Technician and Service Advisor Recognition Program as an incentive to improve training and customer satisfaction measures.
♦Trained colleagues and supervisors in software usage.

Zone Training Administrator **1988-1992**
Acura Western Training Center, Torrance California

Responsible for supervision and evaluation of training center staff, national training staff development in software usage. Coordinated with instructional design, video production vendors, and national training staff. Technical instruction of dealership technicians from the western states. Developed curriculum and staff development tools. Primary focus of instruction based on the Competency Based Model.

Contributions:
♦Developed a standardized curriculum format used in Acura technical training centers throughout the country.
♦Designed and implemented an engine removal fixture for the Acura NSX which was later mass produced and delivered to all Acura dealers in the nation.

TRAVERSE BAY AREA INTERMEDIATE SCHOOL DISTRICT
Traverse City Michigan

Automotive Training Instructor **1978-1988**

Taught all phases of automotive technology and repair. Developed a Competency Based curriculum. Chaired an automotive program advisory board to coordinate training needs with local business establishments.

AFFILIATIONS

Advisor, Automotive and Heavy Equipment Management Student Organization (AHMSO)

Member, National Institute of Automotive Service Excellence (ASE) Master Automobile Technician

Member, Information Technology Council, Ferris State University 1998 to Present

REFERENCES

References available upon request

Curriculum Vitae for
Thomas H. Brownell

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e-mail brownelt@ferris.edu

Home
404 Maple St.
Big Rapids, MI 49307

(231) 796-1197

Teaching and Industry Experience

Ferris State University, Big Rapids, MI 1983 to present
Rank of Professor, Technical Communication and Automotive Management programs
Coordinator of Technical and Professional Communication Program, 1985-1995
Sabbatical leave, 1996-97; 1989-90

Visiting professor in Romania (sabbatical leave), fall 1996
Presented seminars for the Transportation Faculty at the Politechnic University of Bucharest and the University of Transylvania in Brasov; taught philosophy course at the Romanian Bible Institute in Bucharest

Visiting professor in Eastern Europe, summer 1995
Taught courses in journalistic writing and publication design at the Romanian Bible Institute in Bucharest and the Bulgarian Bible Institute in Sofia

NCR Corporation, Cambridge, OH, 1981 to 1983
Technical writer: hardware and software documentation

University of Vermont, Burlington, VT 1979, 1980
Instructor, NEH funded Vermont Writing Program

St. Johnsbury Academy, St. Johnsbury, VT 1970 to 1980
Instructor of English; coached debate; resident advisor

New Hampton School, New Hampton, NH, 1966 to 1969
Reading instructor

Pan American World Airlines, Bahamas, 1963 to 1965
Staff Assistant, Guided Missile Test Range

Education

Ohio University, 1983
Master of Arts, Liberal Studies
Thesis topic: A Study of Technical Writing
Dartmouth College, 1963
Bachelor of Arts: major, government; minor, history; language, Russian
Boston University School of Law, 1966
30 graduate credit hours, law
Boston College, 1967
30 graduate credit hours, Master of Arts program, American history
University of Vermont 1978-81
graduate study, writing
Ferris State University 1993-1995
German language

Technical Training

Convene Learning Internet Program, 1998
Teaching on the World Wide Web
Ferris State University, Teacher Training Institute, summer 1998, 1996
Distance education
University of Michigan, Japan Technology Center, 1997
Lean Manufacturing
Ferris State University Technology Transfer Center, 1993
ISO 9000 certification
University of Toronto, 1989
Hypertext programming
NCR Corporate Education, 1981
BASIC programming
Rensselaer Polytechnic Institute, 1980
Technical Writing Institute

Awards and Special Recognition

Moto Award for Outstanding Achievement in Automotive Journalism, 1997
Awarded by the International Automotive Media Conference. Received for Old Cars Questions & Answers column
Appeared on PBS "World of Collector Cars" 1992-93
Automotive Restoration workshop, shown on PBS television
Golden Quill Award for Excellence in Newsletter Editing
Awarded by Old Cars newspaper. Received 1985, 86, 87, 88, 89, 1990, 91, 92 for Classic Trucks newsletter
Society for Technical Communication, West Michigan Shores Chapter, 1988
Writing excellence award
Society for Technical Communication, Southwestern Michigan Chapter, 1984
Writing achievement award
Fellowship with the Vermont Writing Program, 1977
Studied under Pulitzer Prize winning author Donald Murray
Mechanix Illustrated magazine, 1976
Golden Hammer craftsmanship award

Publications

Books

Automotive Refinishing and Custom Painting (Car Tech Books), 2000
How to Restore Your Collector Car, 2nd edition (Motorbooks), 1999
Illustrated Chevrolet Pickup Buyer's Guide, 2nd edition (Motorbooks), 1998
History of International Trucks (Motorbooks), 1997
History of Mack Trucks (Motorbooks), 1994
Ford Pickup Color History (Motorbooks), 1994
How to Restore Your Ford Pickup (Motorbooks), 1993
Illustrated International Pickup and Scout Buyer's Guide (Motorbooks), 1993
Best of Old Cars Questions & Answers (Krause Publications), 1993
Illustrated Chevrolet Pickup Buyer's Guide (Motorbooks), 1991
How to Restore Your Chevrolet Pickup (Motorbooks), 1991
Dodge Pickups: History and Restoration, co-authored with Don Bunn (Motorbooks), 1990
Textbook: *Desktop Publishing Using PageMaker* (South-Western), 1989
Teacher's *Guide to Desktop Publishing Using PageMaker* (South-Western), 1989
The Heavyweight Book of American Light Duty Trucks, co-authored with Don Bunn (Motorbooks), 1987

Publications, continued

Wells-Index CNC Operator/Programmer Manual, co-authored with Kitty Manley (Ferris State University College of Technology), 1984

How to Restore Your Collector Car (Motorbooks), 1983

Syndicated Columnist, 1998 to present

Coverage and Credit column for Motor News Media Syndicate, circulation 2,000,000

Magazines

Editor, *This Old Truck*, bi-monthly magazine published by Antique Power, 1993 to 1999

Editor-at-Large, 2000 to present

U.S. Correspondent, *Off-Road*, Germany (largest circulation SUV enthusiast magazine in Europe), 1995 to present

Technical Columnist, Double Clutch magazine, 1992 to present

"Nice Ride" columnist, The Papers, 2000

Presentations

Society of Automotive Historians 2000, Los Angeles, CA

"The Automobile as the Dominant Symbol of the 20th Century"

International Automotive Media Conference 1998, Las Vegas, NV

"Automotive Publishing on the World Wide Web"

International Automotive Media Conference 1997, Las Vegas, NV

"Writing for International Publications"

Society of Automotive Historians 1996, Dearborn, MI

"The arsenal of Democracy: America's Auto Industry at War"

Society for Technical Communication/Practical Conference on Communication 1995, Oak Ridge, TN

"Adventure with a Mission: Teaching Professional Writing and Publishing in Eastern Europe"

Society for Technical Communication/Practical Conference on Communication 1994, Oak Ridge, TN

"Certificates in Technical Communication"

World War II Conference 1994, Siena College, Siena, NY

"1944: American Industry at War"

Classic Auto Restoration Expo 1993, Reno, NV

Seminars on publication design and editing"

Michigan Chapters of the Society for Technical Communication 1993, Kalamazoo, MI

"Making Writing Readable in the MTV Age" (co-presented with Dr. Sandra Balkema)

Society for Technical Communication/Practical Conference on Communication 1992, Oak Ridge, TN

"Introduction to Color Publishing"

Classic Auto Restoration Expo 1992, Reno, NV

Seminars on restoring classic cars (broadcast on PBS "World of Collector Cars")

Society for Technical Communication/Practical Conference on Communication 1991, Oak Ridge, TN

"Team Writing: More Heads Make Better Work"

Institute for Electrical and Electronics Engineering (IEEE) 1990, London, England

"Meeting the Changing Demands Placed on Writers as Engineers" (co-authored with Ann Kulik of HDR, Inc., Omaha, NE)

Electronic Publishing Expo 1989, Kalamazoo, MI

"Newsletter Design and Production"

Society for Technical Communication/International Association of Business Communicators 1988, Montreal, Canada

"Designing Eye-catching Publications"

National Automotive Journalist's Association, 1988, Las Vegas, NV

"Producing Publications Using Desktop Publishing"

Massachusetts Institute of Technology Technical Writing Conference 1987, Cambridge, MA

"Indexing and Cross-Referencing in Technical Documentation"

Presentations, continued

International Technical Communication Conference 1986, Denver, CO
"Program Links in Technical Communication"
Society for Technical Communication/International Association of Business Communicators 1985, Toronto, Canada
"Writing Assignments That Work"
International Technical Communication Conference 1984, Seattle, WA
"Selecting the Right Word Processor"
National Council of Teachers of English 1980, Cincinnati, OH
"The Vermont Writing Program"

Grants and Industry

Technical Consultant, Danbury Mint, 1994-95
Ferris State University Curriculum Grant, 1994, 1992, 1986
Research in color publishing, certificates and internships in Technical Communication
Aldus Corporation, 1988-91
PageMaker software beta evaluation site
Adobe Systems, Ricoh Corp., Micro Display Systems, 1989
Computer hardware/software donation to Technical Communication program
Document Design Consultant, Upjohn Corp., 1985

Curriculum Innovation and Development

Taught first on-line courses for College of Arts and Sciences, 1999
Participated in Inter-College Curriculum Integrated Manufacturing (CIM) initiative, 1991
Developed core Technical Communication courses and assisted with Technical Communication Program proposal, 1984-85

Professional Memberships

Omicron Delta Kappa Leadership Society, inducted 1992
Society for Technical Communication, senior member
West Michigan Shores Chapter, Society for Technical Communication
founding member
Society of Automotive Historians, since 1981
Dartmouth Club of the North Country, president 1976-80