Automotive & Heavy Equipment Management

APRC 2006-2007

section 1 of 3

Ferris State University
College of Technology
Automotive Department

Automotive and Heavy Equipment Management (AHM)

Program Review

August 18, 2006

TO: Dr. Thomas Oldfield, Interim Dean, College of Technology

FROM: Automotive Department Tenured Faculty

DATE: February 22, 2006

SUBJECT: Automotive Department Chair Position

After much thought, discussion, and deliberation, the tenured faculty (alphabetically listed below) of the Automotive Department officially request a department chair change.

Over the last ten years, we have seen a lot of change with faculty retiring and the hiring of ten new faculty. We feel that the opportunity is right to tap into the rich talent pool so we can better prepare for the future of our department as a team.

We highly recommend this appointment be on a three-year rotation, with future chairs being identified/selected after the second year to help provide for a smooth transition. More than one tenured faculty member has expressed an interest in serving in this capacity.

While we appreciate the time and effort that Greg Key has contributed, we also feel the time is right for change. We pledge our 100% support and assistance to you and the new chair as we move ahead.

We look forward to further discussing this important issue with you.

Pete Alley

Mike Ropele

Rex Billings

Dan Skurski

Greg Denny

Ben Upham

Vic Fowler

Dan Vander Woude

Mike Hachman

Bill Wagner

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY / AUTOMOTIVE DEPARTMENT

AUTOMOTIVE MANAGEMENT MINOR

Curriculum Guide Sheet

Degree Overview:

This minor is designed to provide students with a solid overview of the business and cultural side of the transportation industry. Students will be prepared to transition into sales, marketing, distribution, and customer relations positions with vehicle and equipment manufacturers, suppliers, dealers, and aftermarket companies.

Ferris has been providing the Automotive Industry with entry-level managers since 1971, and is well known and respected for producing individuals with these skills.

Admission Requirements:

The minor is open to all students pursuing baccalaureate or higher degrees in majors other than Automotive Management. Students are expected to meet prerequisites for all courses, and are required to meet with their Automotive Management faculty advisor to plan and track their progress.

Degree Requirements:

Minimum of 18 semester hours; GPA of 2.0 or higher in each degree course.

Required Courses:

AMGT 301 (AHEM 301)	Automotive Marketing & Distribution I (F)	4 (4+0)
AMGT 302 (AHEM 302)	Automotive Marketing & Distribution II (W)	4 (4+0)
AMGT 303 (AHEM 303)	Automotive Accounting (W)	4 (3+2)
	or ACCT 201 Principles of Accounting 1 (F,W,S)	3 (3+0)
AMGT 404 (AHEM 404)	Warranty and Customer Relations (W,S)	3 (3+0)

Directed Electives: (Fulfill the balance of credits by choosing one of the following courses.)

AMGT 300 (AHEM 450)	Automotive Materials (F)	4 (4+0)
AMGT 360 (AHEM 360)	Automotive Culture (F)	3 (3+0)
AMGT 402 (AHEM 402)	Management of Variable Operations (W,S)	4 (4+0)
AMGT 460 (AHEM 460)	Automotive Internet Marketing (W,S)	3 (2+2)

Note: **The course numbers shown with the "AMGT" prefix are the new numbers, beginning fall semester 2007. The course numbers shown in parenthesis (with the "AHEM" prefix) are the old course numbers that will be used through summer semester 2007.**

Academic Program Review Council
Questions for the AHEM Program
6 pm, Tuesday, October 3, 2006—ASC 2082

Questions:

a. Discuss the program faculty's perception of the current status of the situation with regard to the Automotive Department chair.

b. Discuss the situation with regard to overloads for AHEM faculty. If an AHEM faculty member became department chair, could the current faculty cover the needed classes? How easily can adjuncts be found for this program, here and in Macomb County?

History/Current Status:

For quite some time, program and department faculty members have been concerned with the lack of leadership from the current Department Chair. In February of 2006, nine tenured faculty members (all, other than Greg Key – Dept. Chair, and Mike Hachman) met to discuss and formulate a plan of action. As a result, a signed memo was prepared and presented to then Interim Dean Tom Oldfield on March 13, 2006 requesting a department chair change (copy attached). On March 20, 2006, Dr. Oldfield met with the Automotive Department faculty (tenured & non-tenured) and announced that he planned to allow Greg Key to stay on for another year. He cited program review, ABET accreditation, and soft corporate program enrollment as reasons to keep Greg Key on board. He also asked the faculty to nominate potential candidates for the Chair position for fall 2007 and to communicate them to him accordingly. (Said he wanted to allow the new candidate time to ramp up for the job.) Shortly after this meeting, two candidates surfaced – Greg Key (who had earlier told tenured faculty that he would step down and give someone else a turn) and Automotive and Heavy Equipment Management faculty member Dan VanderWoude. A faculty vote was taken and the result of the vote was as follows: VanderWoude 11, Key 7. Several months passed, and AHM faculty members gathered a list of potential faculty members/adjuncts that could help cover the added load created with Vanderwoude's move. On Tuesday September 26, 2006, Dr. Oldfield called a meeting with department faculty and announced that he was leaving Greg Key in the Chair position indefinitely. He also announced his position on the future of the three corporate options of the Automotive Service program.

As a result of the recent decision, AHM faculty loads will not be affected - as anticipated. If needed and with advanced networking and planning, adjuncts as well as faculty members from other programs are available to assist with the teaching load.

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As stated in the Academic Program Review document (page 63), the AHM faculty continue to feel a lack of support from administration at both the department and college level.

c. Discuss the problem and possible solutions to the problems of classroom size and numbers of computer work stations available to the program.

This is simply an issue of real estate. The Automotive Center faculty need a certain number of classrooms and lab space for instruction. An entire classroom has been dedicated for use as a computer lab. Taking another classroom out of service and converting it into a computer lab is impractical. The only realistic option would be moving the computer lab into a larger classroom which would allow for more workstations and free up the current computer lab as lecture space.

41% X-fer Students in AHM

To- facility need external help for new facility

faculty willing to Team

59% from FSV

d. Discuss the program's success in marketing the AHEM minor.

The new "Automotive Management" minor will not officially begin until fall 2007. The AHM faculty team however has prepared an interim curriculum guide sheet for students interested in starting early. This guide sheet shows both the old and new course numbers to assist with student scheduling and planning (copy attached).

During October of 2006, the AHM faculty will be targeting College of Business (COB) freshman, sophomore, and junior students by sending out a direct mailing to officially announce the new minor. In addition, with the Business Administration degree having 21 open/available credits in it, AHM faculty will work more closely with COB faculty to promote the minor as an option for those students. The planned direct mail activity is a joint effort between AHM faculty, Bill Boras from the COB, Kathy Fisher of Enrollment Services, and Jane Pedelty of the Copy Center.

e. The revised program checksheet indicates that the program is dropping two business courses to meet University "size" requirements? Is the alternative of reducing courses in the major from four to three credits an option?

As a result of the V.P.A.A.'s mandate to reduce the number of credits to 120 plus internship(s), the AHM faculty team spent a considerable amount of time reviewing and discussing all of the options. After lengthy discussion and input from advisory committee members, the decision was made to eliminate MGMT 301, MKTG 321 and AHEM 499 from the program. Since AHEM 303, AHEM 401, and AHEM 402 were already a blend of two classes, and since industry specific management and marketing coursework is already a focus in six of the AHM classes, it was decided that eliminating the classes mentioned made the most sense.

f. Discuss the possibility of increasing course offerings at Macomb to shorten completion time for students in the program there.

The AHM program has been offered at Macomb Community College since the fall of 1996. Since that time, 31 classes have been offered with an average enrollment of 14.81 students per class (per S.I.S. and Banner data).

We currently have nine courses in the area of major, offer one class per semester - year around, have open entry, and rotate the existing three fulltime AHM faculty members for delivery.

The typical AHM student at Macomb works forty plus hours a week, has a spouse, kids, mortgage, etc. and takes one AHM course and one general education/business course per semester. The current cycle time for the major courses alone is 9 semesters or 3 years. On the two occasions when we did offer two courses in major at the same time, the enrollment in one of the classes suffered. We have found that one class, in major, per semester works best for all parties involved.

We have only had one official complaint/request regarding the number of course offerings per semester that we are aware of (Dan Prater). When we dug into his situation, we found where he was a student who started the AHM program, dropped out for a period of time, and then when he decided to get serious and return – the timing of our offerings didn't satisfy his schedule. (Note: He has completed the degree – and has matured somewhat since then.)

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Academic Program Review Council

Name of Program:
Automotive and Heavy Equipment Management (AHM)

Reviewer Notes Sheet

Reviewer: Roger

Reviewers: As you read the reports, jot down your observations in the following categories. For program improvement purposes, it is important to note the evidence behind the observation as well.

Observation	Evidence

1. Strengths

- **FSU and the four other institutions that offer this degree meet once a year.** **Pg. 5.**
- **A well established program with over 2,000 graduates.** **Pg. 2.**
- **Advisory Board provides feedback RE: curriculum, work performance, industry trends.**
- **Program meets FSU Mission.**
- **Adequate faculty with diverse background.** **Pg. 11.**
- **Adequate facilities.** **Pg. 11.**
- **Internship (required / paid positions).**
- **Macomb Community College off campus program offering.**
- **Active student organization**
- **Scholarship opportunities for students.**

overloads still high in Fall 2006

2. Weaknesses

- **AHM faculty (and majority of Automotive Department faculty) unhappy with dept. Chair.** **Pg. 63.**
- **Faculty concerned about on-going overloads (both on and off campus)** **Pg. 63.**
- **Small classrooms.**
- **Limited number of computer workstations.** **Pg. 124.**

possible solution

(1) How invol situation look if new dept chair from AHM faculty

3. Opportunities

- **As of 2004 62% of jobs will be in firms that make motor vehicle parts.** **Pg.8.**
- **As of 2005 22% of all new motor vehicle manufacturing jobs are in MI.**
- **AHM Minor**
- **0 + 4 program option** **Pg. 75.**
- **Curriculum revisions for Fall 2007.**
- **Admission requirement will be increased from 2.0 to 2.3 GPA**

in AET there are min opportunities

(2) Are there enough AET + AST faculty to pick up slack

(3) Could some curriculum (ACCT) be offered by COB

Q what will current trend in Automotive industry do to employability & grads?

4. Suggestions

- **Could the Macomb course offerings be increased to shorten completion from 3 to 5 years for the equivalent of 3rd and 4th years of the on campus program?**

* need dept. head explanation for pgm

5. Rating

Q Increase Macomb offerings to reduce completion time

Q why 4-hr lecture Corrosion in major (p. 17)

Q why cutting hours + Mgt. instead of cutting back

Dept Chair
Program Review input for the AHM program

Enrollment outlook for the two-year degree in Auto Service at Ferris seems to be very low. Two years ago we had 120 freshmen. Last year we started 90 freshmen. This was a large group for the AHM program to recruit from. This past fall, 2006, we had 15 Associate degree students and 17 0-4 students. The 0-4 is a good indication however; the loss of two year students will mean increased recruiting efforts to replace freshman losses.

Only 5 freshmen started the AHM program this fall in the 0-4 entry point. With the trend of almost no 2 year students to recruit from, the AHM faculty will have to recruit freshmen for their new 0-4 entry point. When the university entrance GPA goes up to a 2.8 GPA in 2007, there will be a possibility of losing more two-year students. In two years when the 5 freshmen become juniors, that means that all the classes in AHM will have 5 or less students, not counting transfers. That means the program will have to live on transfer students. No program can live on only transfer students.

The AHM faculty will need to recruit from high schools for the 0-4 freshman. They should also recruit from community colleges to maintain transfer students. If both of these areas are followed through on, there should be no enrollment problem in the AHM program. Resources may be required for recruitment.

FERRIS STATE UNIVERSITY

DATE: August 18, 2006

TO: Doug Haneline, Chair, Academic Program Review Council

FROM: Tom Oldfield, Dean, College of Technology

SUBJ: Analysis of Auto and Heavy Equipment Management Program

Upon review of the AHEM Self-Study document, I make the following observations:

1. The applied nature of the AHEM program is central to the mission of Ferris State University. As a third/fourth year program, it provides a bachelor degree option for students that have completed an associate degree from Auto Service, Heavy Equipment Technology or equivalent received off-campus.
2. The AHEM program has been successful in attracting transfer students. This will become increasingly important as on campus feeder programs (e.g. Auto Body) become unavailable. AHEM has also been able to sustain a steady off-campus enrollment at Macomb Community College.
3. Both the employability of graduates and the industrial participation in the program demonstrate the viability of the AHEM program. Introduction of a 0-4 degree and minor should also provide greater opportunities.
4. Program faculty are actively engaged with students and their employers. Greater visibility and participation in discipline related professional organizations and activities are encouraged.

In summary, I believe that the self-study is an accurate reflection of health and viability of the AHEM program. I will work with the Vice President to attempt to address the recommendations.

COLLEGE OF TECHNOLOGY
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Phone 231 591-2890 Fax 231 591-2946
www.ferris.edu/technolo

SECTION 1

PROGRAM OVERVIEW

Program Evaluation Plan
Automotive and Heavy Equipment Management

Degree: B.S., Automotive and Heavy Equipment Management

Program Review Panel:

AHM faculty and Chair:	Mike Ropele
AHM faculty and Past Chair	Greg Denny
AHM faculty:	Dan Vander Woude
Special interest faculty:	Mike Hachman (Professor – Automotive Service)
Outside faculty member:	Tom Brownell (Professor – Languages and Literature)
Department Chair:	Greg Key

Purpose: To identify strengths and weaknesses in the Automotive and Heavy Equipment Management (AHM) Program. Results to be used to improve the program and to allocate resources, as necessary, to better serve students 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 AHM faculty.
5. Advisory perceptions collected at the next meeting in March 2006.
6. Labor market analysis researched via current market indicators.
7. Evaluate facilities and equipment through analysis by AHM faculty.
8. Evaluate Ferris provided program specific data by AHM faculty.
9. Evaluate curriculum through analysis by AHM faculty and Advisory Committee input.

Schedule of Events:

Graduate Surveys (11/05-2/06)	Dan Vander Woude
Employer Surveys (11/05 – 2/06)	Greg Denny
Student Surveys (11/05-2/06)	Mike Ropele
Faculty Surveys (11/05-2/06)	Mike Ropele
Advisory Committee (March 2006)	Mike Ropele, Greg Key
Labor Market Analysis (11/05-2/06)	Tom Brownell
Facilities Evaluation (2/06)	Mike Hachman, Dan Vander Woude
Collection of FSU data: (ASAP)	Greg Key
Curriculum Evaluation: (March 2006)	All Committee Members
Initial Report Due (6/15/06)	

A. Program Goals

1. State the goals of the program.

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, and Chrysler's CAP programs are also eligible to enroll in this program.

The program concentrates on managerial skills required by the industry. Instruction is provided in the areas of management, sales, marketing, product distribution, customer relations, warranty, franchising, dealership operations, accounting, financing, internet marketing, related computer skills, and an overview of the history and culture of the industry. Students also have the opportunity to develop and improve their communication skills through oral presentations and written projects that are required in many courses.

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 strong vision, a positive attitude, and the desire to make a contribution.

2. Explain how and by whom the goals were established.

The AHM program started in 1971, graduating its first class in 1973. The degree was a direct reaction to industry's call for a program that would take technical associate degree students and prepare them for management roles in the ever-expanding industry. The industry wanted graduates that were technical, had industry specific business skills, and had strong oral and written communications skills.

Because of strong industry ties, and input from advisory boards and alumni over the years, the curriculum was constantly updated. Throughout all of the years and all of the curriculum enhancements, the program's goals have been consistent.

The program has graduated over 2000 graduates over this time frame 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 orientated, the name was changed to Automotive and Heavy Equipment Management (AHM) to more closely reflect the curriculum.

3. **How do the goals apply to preparing students for careers in and meeting employer needs in the applicable marketplace?**

   The goals directly support both student preparation for an industry management career and employer demands for qualified entry-level managers. The goal demonstrates the program's commitment to the industry at the state, national, and global levels. In addition, the goals demonstrate the importance of building a strong educational foundation on which to build a future of learning and experience.

4. **Have the goals changed since the last program review? If so how and why, if not-why not?**

   The goals have not changed. Curriculum enhancements are made all the time. There are new trends, new computer hardware and software used as tools, new aspects of the industry developing, but our goal has been constant.

5. **Describe the relationship of the program goals to the University mission, departmental, college, and divisional strategic plans.**

   The program goals share in common many of the ideas, missions, and plans of the department, college, division and the University. Such goals include a learner centered approach using innovative teaching. The goals are career-minded and seek to promote professional education. Flexible options include off-campus offerings for part-time students at the University Center at Macomb Community College in Utica, Michigan. Such offerings provide increased flexibility to learners and increased university visibility.

   AHM course sheets for both the on-campus and Macomb Community College off-campus offerings are included at the end of this section.

B. Program Visibility and Distinctiveness

1. **Describe any unique features or components of the program.**

   Several components make the program unique. First, the program was the first of its kind in industry. Because of the history, and large number of alumni working in industry, we have a strong and positive reputation. Secondly, because we are a '2+2' program, we offer every two-year associate degree program across the country an option for their students who desire to go on and obtain a B.S. degree with a management focus. Thirdly, since we are Michigan based, we have the three domestic automobile manufacturers and related suppliers/vendors in our back yard, which makes partnering and internship/job placement much easier for our students and graduates.

2. **Describe and assess the program's ability to attract quality students.**

   Over the last 10-15 years more students aim to pursue a baccalaureate degree. Because of the increased University entry requirements, the advanced general education requirements of the B.S. degree, including advanced levels of math and additional general education coursework, students need to be of higher academic ability.

   Currently, the AHM program competes with the Automotive Engineering Technology and Heavy Equipment Service Engineering Technology programs at Ferris in recruiting on-campus associate degree students.

   Students that transfer into the AHM program from other institutions typically tend to be the "Cream of the Crop" from that institution, both academically and from a maturity standpoint.

   On-going faculty recruiting, our program website, our reputation, and the networking of program alumni have made the difference in attracting quality students.

3. **Identify the institutions that are the main competitors for prospective students in this program.**

Competitors of the AHM program include: Southern Illinois University, Carbondale, IL; Pittsburg State University, Pittsburg, KS; Weber State University, Ogden, UT; and Colorado State University, Pueblo, CO.

a. **How are these programs similar and different from the FSU program?**

All of these programs, other than Weber State, are '0+4' programs that are made up primarily of three years of technical coursework and a year of business related coursework. Weber State has a '2+2' program similar to AHM.

b. **What can be learned from them that would improve the program at Ferris?**

Since the five institutions are geographically dispersed, representatives from each school meet as a group once per year to compare notes. Faculty from the five institutions are committed to cooperation, and are not overly worried about competition. The schools work together to learn from each other, to collectively network with industry, and to discuss emerging trends.

In July 2006, Mike Ropele coordinated the 2006 meeting on Ferris' campus. (See a copy of the last meeting agenda at the end of this section.)

C. Program Relevance

1. **Provide a labor market demand analysis, to assess the marketability of future graduates. Reports from the Department of Labor and industry are excellent sources for forecasting demand on graduates.**

   The Automotive and Heavy Equipment Management (AHM) program from its beginning has served a very unique employment niche in the motor vehicle industry. While the program initially focused on the retail/dealership side of the industry, it now places more emphasis on the wholesale relationship between the manufacturer and the dealer. Currently the largest percentage (67.8%) of graduates find employment with manufacturers and suppliers in the wholesale side of the industry as reported in the recent alumni survey. Second to the wholesale employers is the retail (dealership) segment with employment figures at 17.8% in the program alumni survey in 2006. The unique nature of the AHM program and the entry-level positions with these companies makes it difficult to find hard data on the future of this labor market. Information is available on the future of retail, vehicle manufacturing, wholesale representation, and parts manufacturing segments of the industry. Program alumni are employed in each of these industries as well as others.

   The overall job market has shown remarkable stability in spite of economic downturns. The year 2005 ranked third out of the seven best years ever for new vehicle sales by franchised dealers.

   In 2005 new vehicle sales continued to be driven by manufacturers' customer incentives, employee pricing, and attractive lease programs. New light vehicle sales for the entire year of 2005 were 16.94 million units, somewhat higher than the 16.86 units sold in 2004. Sales of medium and heavy-duty trucks rose to 496,575 units in 2005, and increase of 15 percent over 2006.

   Moderate consolidation of small dealers into large dealer groups is expected to continue, however this trend slowed in 2005. Manufacturers also retreated from freezing the number of dealerships in the U.S. The number of franchised dealers in the U.S. dropped by 145 in 2005 as compared to a net loss of only 10 in 2004. The loss of new vehicle dealerships has primarily affected the small volume stores. In 1986 there were 7600 dealers in the U.S. which had an annual sales volume of less than 150 units. Today that number is 3415. New vehicle dealers which sell over 750 units per year numbered 6446 in 2005 whereas in 1986 their number was only 4525.

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 from foreign manufacturers, has forced a complacent industry to rethink the way that they do business.

Expectations of the new vehicle customer as well as the manufacturer have placed increasing pressure on the retailer to exceed customer satisfaction standards. This pressure places increased importance on finding the right employees for jobs in retail. 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. One half of all workers in this industry have no formal education beyond high school.

Moreover, the continuing 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. Automobile dealers provided about 1.3 million wage and salary jobs in 2004. Sales, parts, and service positions made up 63 percent while 35 percent were in management and office support.

Opportunities in the years 2004-2014 will hinge on consumer confidence and buying habits. Population growth will also have a profound effect on the demand for vehicles. The Bureau of Labor Statistics (BLS) predicts a 12 percent increase in this industry in this time period.

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.

The U.S. Bureau of Labor Statistics reports that as of 2005, 22 percent 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.

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 1.6 million jobs in 2004. Three out of four worked for manufacturers or 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. The AHM program excels by matching technical training, written and oral communication, as well as business management training together. These elements help to prepare excellent potential employees for this industry.

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. In 2004 the majority of jobs (62%) are in firms that make motor vehicle parts.

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.

Three mid-west states (Michigan, Ohio, and Indiana) employ 46 percent of all parts manufacturing employees in the U.S. Michigan leads with 22 percent.

Of all the industries noted previously, the parts manufacturing segment continues 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

National Automobile Dealers Association
www.nada.org

2. **Describe and assess how the program responds to emerging issues in the discipline, changes in the labor force, changes in employer needs, changes in student's needs, and other forces of change.**

Program faculty assume the responsibility to identify emerging trends in the discipline, labor force, employer needs, and student needs from interactions with industry advisory members, employers, alumni, competitive schools, and from being on-going students of the industry themselves.

3. **Asses why students come to FSU for the program. Summarize the results of the graduate exit survey and the student program evaluation.**

   a. **How well does the program meet student expectations?**

   Overall the program gets good marks from current students and recent graduates. The program has a solid reputation throughout the transportation industry. Many prospective students are likely to hear positive recommendations about the program from high school and associate degree program teachers, from program alumni, and from those employed in industry throughout the country.

b. How is student sentiment measured?

Student sentiment was measured using surveys of both current students and recent graduates. See section two for a summary of the most recent survey data.

D. Program Value - Please refer to the faculty survey.

1. **Describe the benefit of the program, facilities, and personnel to the University**

   Though divisions exist within the department at some levels regarding issues that will determine the future direction of the department, the AHM faculty remain in agreement about the current strength and viability of the program. Faculty members in the program respect each other's knowledge, background, and teaching abilities and practices. The faculty exhibit pride in our numerous graduates and possess numerous contacts in the field that benefit the University. Such contacts and alumni are potential donors of money and material to the university and also potential employers to our graduates. Program faculty are active on University and College of Technology committees and actively engage in on and off-campus recruiting activities.

2. **Describe the benefit of the program facilities and personnel to the students enrolled in the program.**

   The faculty agrees that the program and department offers a large, well staffed facility. The department faculty body is large and has a diverse background for students to draw from. Students are known by name. Faculty members encourage student contact and have open offices that allow for ease of contact with students beyond required office hours. Faculty members advise and inform each student of their options and choices within the program, department and the university. Faculty member contacts within industry, including faculty at other schools, offer a powerful network that contributes to our high placement rate. Students also are informed of numerous cultural, social and athletic events offered on campus. A computer laboratory with 17 desktop computers and 24 laptop computers with wireless internet offers connection with the world for our students. While we did receive smart room upgrade funding for Auto Center 105 and 108, program faculty feel the faculty office areas as well as the common areas within the Auto Center are in desperate need for updating.

3. **What is the assessment of the program personnel of the value of the program to employers?**

   The faculty remain in agreement that the program has a good reputation for turning out qualified graduates to employers. We encourage students to obtain industry recognized ASE certification while the information is still

fresh, to constantly work on improving communication skills, and to plan and prepare for a graduate degree after they complete the AHM program.

Explain how this value is determined

This value is determined by several indicators. The program has an annual advisory committee meeting each March. The committee is made up of representatives from all aspects of industry. Approximately 50% of the committee is made up of alumni. The committee serves our program and students by providing input on program curriculum, feedback on work performance of Ferris graduates, and emerging trends. Another indicator of employer satisfaction is our internships. Program faculty members closely monitor the progress of students and make regular visits to internship facilities. Management and mentor input are used in evaluating student progress. An employer survey is collected from employers of Ferris graduates. The survey data reveals an overwhelming majority of employers are satisfied with the preparation of our graduates as entry level managers. Another indicator of AHM's value is the rates of graduation and placement which remain above university averages.

4. **Describe the benefit of the program, faculty, staff, and facilities to entities external to the University.**

The department and program faculty members serve external entities in many ways. The Automotive Center was site of the 2000 NACAT (North American Council of Automotive Teachers) conference. This conference brought instructors and industry representatives from all over the United States and Canada to our campus. The building also has been the site of training for dealership technicians and service managers through DaimlerChrysler Academy. A Jaguar/Land Rover regional meeting was held in the building during the summer of 2005. The Automotive faculty is active and there are many individual examples of related industry involvement external to the University.

5. **What services for extra-University general public groups (e.g., presentations in schools or to community organizations) have faculty, staff or students provided? Describe how these services benefit students, program, and community.**

The three AHM program faculty members spend significant time interacting with industry. They also co-advise the Automotive & Heavy Equipment Management Student Organization (AHMSO), which is involved with the State of Michigan's Adopt-a-Highway Program, and

which runs a vehicle detailing activity each fall and spring with two other student organizations within the department. Additionally, the faculty recruit both internally and externally for the department and program.

Four Year Automotive School Meeting
Ferris State University
Meeting Agenda, July 9 – 11, 2006
(Ropele's Cell 231/349-1035)

Sunday July 9, 2006

- Travel to Big Rapids
- 7:00 p.m. - Meet for Dinner
  Bennigan's (In the Holiday Inn)

Monday July 10, 2006

- 8:00 a.m. – Coffee/Rolls (Automotive Center Conference Room)
  - Tour of Automotive Center (Greg Key)
  - Tour of Heavy Equipment Center (Gary Maike) (FSU Van)
- 10:00 a.m. – Group Discussion (Auto Center)
  - Individual school update
  - Discussion of recruiting strategies
  - Discussion of challenges as well as future opportunities
- 12:15 p.m. – Lunch (Buffet - Auto Center 105)
- 1:30 p.m. - "Skills Needed Beyond the B.S. Degree – and Our Role"
  - A "Best Practice Forum"
  - Panel made up of attendees, and industry guests such as - James Chenier, Vice-President of Detroit Diesel; Stacy Balzer, Operations Manager – Ford Technical Service Hotline; Brian MacLean, Ford Tehnical Hotline Summer Intern; Samara Skowronski, Technical Recruiter, TAC Automotive Group; Dr. Bill Boras, Department Head – College of Business

- **Graduate Programs, Ferris State University; Debra Cox, Department Head, Educational & Career Counseling Center, (and active member in Toastmasters International), Ferris State University.**

- **7:00 p.m. – Dinner (for attendees and panel guests) (*Antlers* – Canadian Lakes) The FSU van will depart Big Rapids at approx. 6:30 p.m. (Dinner is on FSU Auto. Dept.)**

<u>Tuesday July 11, 2006</u>

- **8:00 a.m. – Coffee/Rolls (Automotive Center Conference Room)**
- **8:30 a.m. – FSU Instructional Technology Demonstration – (Dan Vander Woude)**
- **10:00 a.m. – Discussion – "Instructional Technology Trends"**
- **11:00 a.m. – Tour of "FLITE" (Ferris Library for Information, Technology and Education) (with Kristen Motz)**
- **Noon - Conclusion / Wrap-up**

<u>Guest School Participants</u>:

Ron Darby - Colorado State University – Pueblo
Robert Frisbee – Pittsburg State University
Ken Gordon - Pittsburg State University
Jack Greer – Southern Illinois University
Mike Behrmann – Southern Illinois University
Rick DeMoss – Weber State University

Ferris Participants:

Ropele, Key, VanderWoude, Denny, Maike +/or Cripe, and Dr. Thomas Oldfield – Dean, FSU College of Technology

Nearest Airport

Ford International Airport
Grand Rapids, MI
(located approx. 60 miles south of Big Rapids)

Directions

Take U.S. 131 north out of Grand Rapids and proceed to Exit 139 (Perry Street) and turn right/east into town. The Country Inn is located next to the Meijer store and you will see it once you get off on the exit. As you proceed to the east, the Holiday Inn will be on your right, and a block or so further east your will see the Super 8 on your left. (If you continue approx. a half mile east you will run into the university's main entrance.)

Lodging (3 Big Rapids recommended options)

Holiday Inn & Conference Center
1005 Perry Street
Big Rapids
231-796-4400

Country Inn & Suites
(next to Meijers off of Perry Street)
15344 Waldron Way
Big Rapids
231-527-9000

Super 8 Motel
(next to Bob Evans off of Perry Street)
845 Water Tower
Big Rapids
231-796-1588

Automotive and Heavy Equipment Management • *Bachelor of Science*

Why Choose Automotive and Heavy Equipment Management?

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.

Prepare for a Great Career

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. Other management positions include 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.

Admission Requirements

Students entering the program must have an associate degree in an automotive or heavy equipment area or equivalent. Admission is open to the following Ferris programs: Automotive Body, Automotive Service Technology and Heavy Equipment Technology.

Graduates of automotive-related associate degree programs at other colleges are also qualified to transfer into the AHM 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 GPA in core classes, in the major and overall. Students must complete all general education requirements as outlined on the General Education website.

Required Courses		Credit Hours
General Education		
COMM 121	Fundamentals of Public Speaking	3
ECON 221	Prin of Macroeconomics*S	3
ENGL 311	Advanced Technical Writing	3
Electives:	Cultural Enrichment	6
	Scientific Understanding (with lab)	4
	Social Awareness	3
Major		
AHEM 301	Auto Marketing & Distribution 1	4
AHEM 302	Auto Marketing & Distribution 2	4
AHEM 303	Dealership Accounting	4
AHEM 360	The Auto: Symbol, Art Form, and Shaper of Society	3
AHEM 401	Management of Fixed Operations	4
AHEM 402	Mgmt of Variable Operations	4
AHEM 404	Warranty Procedure/Customer Rel	3
AHEM 450	Automotive Materials	4
AHEM 460	Automotive Internet Marketing	3
AHEM 493	Automotive Management Internship	4
AHEM 499	Seminar/Project & Assessment	1
Related Courses		
BLAW 301	Legal Environment of Business	3
MGMT 301	Applied Management	3
MKTG 321	Principles of Marketing	3
Minimum credit hours required for B.S. degree (after completion of an A.A.S. degree):		69

More Information
AHM Program
Ferris State University
708 Campus Drive
Big Rapids, MI 49307-2281
or call (231) 591-2655

Unleash your potential!

Education That Works

In its second century as one of the nation's premier career-oriented technological and professional universities, Ferris State University provides skills and experiences to make you immediately employable in your chosen field. We also provide you with a broad base of critical knowledge to help you keep pace with a rapidly changing workplace and world. The University's programs are tailored to challenge you and meet the demands of employers.

The Advantages of Choosing Ferris

You can choose from more than 170 degrees in these six Michigan career pathways: Arts and Communications; Business, Management, Marketing and Technology; Engineering/Manufacturing and Industrial Technology; Health Sciences; Human Services; and Natural Resources and Agriscience. Or you can choose to explore your options in our Career Exploration program. Other Ferris advantages:

- Many degrees not offered at any other university in Michigan or the United States
- Small class sizes (80 percent of classes have 25 or fewer students)
- Option to ladder from a 2-year to a 4-year program according to your career and personal goals
- Faculty with practical experience as well as academic ability
- Classes taught by professors, not graduate assistants
- Advisory committees to keep programs in touch with current needs of the industry

Financial Aid

The University awards more than $71 million in total student aid each year. More than 82 percent of Ferris students receive financial assistance, including scholarships, grants, long-term loans and part-time employment.

Enjoy Yourself

Ferris is home to 210 active student organizations, encompassing social, athletic, political, artistic and religious activities and interests. Arts and cultural events, varsity athletics and an extensive intramural sports program will also keep you busy.

Honors Program

Our Honors Program allows you to move quickly through your chosen discipline with challenging, high-level course work. You'll live in an Honors residence hall alongside the best and brightest young scholars Ferris has to offer. You'll also enjoy exclusive scholarship and educational options, cultural stipends and community-service opportunities.

Visit Our Web Site

To apply, learn more about financial aid, visit our campus or sign up to create a VIP Web page designed just for you, see our Web site, **www.ferris.edu**

FERRIS STATE UNIVERSITY
Office of Admissions and Records
1201 South State Street, CSS 201
Big Rapids, MI 49307-2747

For more information, call toll-free: **800-4-FERRIS** or see our Web site at **www.ferris.edu**

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Visit Our Web Site

To apply, learn more about financial aid, visit our campus or sign up to create a VIP Web page designed just for you, see our Web site, **www.ferris.edu**

FERRIS STATE UNIVERSITY

Office of Admissions and Records
1201 South State Street, CSS 201
Big Rapids, MI 49307-2747

For more information, call toll-free: **800-4-FERRIS** or see our Web site at **www.ferris.edu**

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE AND HEAVY EQUIPMENT MANAGEMENT
BACHELOR OF SCIENCE DEGREE
FALL SEMESTER
Curriculum Guide Sheet

BS Degree Minimum General Education Requirements

(See the General Education webpage at www.ferris.edu/HTMLS/academics/gened/gened.html for details and acceptable courses in each program)

Communications Competence: 12 semester hours

Quantitative Skills: MATH 115 or ACT score

Scientific Understanding: 7/8 semester hours, including at least one lab course.

Cultural Enrichment: 9 semester hours, including at least one course 200 level or higher.

Social Awareness: 9 semester hours, including at least one Foundation course and at least one 200 level or higher.

At least one Global Consciousness (G) course and one Race/Ethnicity/Gender (REG) course (within Cultural Enrichment or Social Awareness).

Meeting all requirements for graduation is the student's responsibility. Your advisor is available to assist you.

Total semester hours needed for graduation: 68 in addition to AAS degree.

			CREDIT/GRADE
THIRD YEAR-FALL SEMESTER			
AHEM	301	Automotive Marketing & Distribution I	4
AHEM	450	Automotive Fuels and Lubes (Junior Status)	4
ENGL	311	Advanced Technical Writing (ENGL 211 or 250)	3
COMM	121	Fundamentals of Public Speaking	3
THIRD YEAR-WINTER SEMESTER			
AHEM	302	Automotive Marketing & Distribution II (AHEM 301)	4
AHEM	303	Dealership Accounting (AHEM 301)	4
MGMT	301	Applied Management	3
ECON	221	Principles of Economics 1 (C- in MATH 110)	3
ELECTIVE		Cultural Enrichment Elective (200 level or higher)	3
FOURTH YEAR-FALL SEMESTER			
AHEM	360	Automotive Culture	3
AHEM	401	Management of Fixed Operations (AHEM 303)	4
BLAW	301	Legal Environment of Business	3
MKTG	321	Principles of Marketing (ECON 221)	3
ELECTIVE		Social Awareness Elective	3
FOURTH YEAR-WINTER SEMESTER			
AHEM	402	Management of Variable Operations (AHEM 303)	4
AHEM	404	Warranty and Customer Relations (Senior Status)	3
AHEM	460	Automotive Internet Marketing (Senior Status)	3
ELECTIVE		Scientific Understanding Elective	3
ELECTIVE		Cultural Enrichment Elective	3
INTERNSHIP (MAY BE TAKEN ANY TIME AFTER THIRD YEAR)			
AHEM	493	Internship (Senior Status)	4
AHEM	499	Seminar, Project & Assessment (Co-req AHEM 493)	1

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

Revised: 04/05
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FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

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 I	4
AHEM	302	Auto. Marketing & Distribution II	4
AHEM	303	Dealership Accounting	4
AHEM	360	Automotive Culture	3
AHEM	401	Management of Fixed Operations	4
AHEM	402	Management of Variable Operations	4
AHEM	404	Warranty and Customer Relations	3
AHEM	450	Automotive Fuels and Lubes	4
AHEM	460	Automotive Internet Marketing	3
AHEM	493	Internship	4
AHEM	499	Seminar, Project & Assessment	1

Related Coursework

BLAW	301	Legal Environment of Business	3
MGMT	301	Applied Management	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			3

It is highly recommended that you take the ASE tests prior to graduating from your baccalaureate degree program and while the information is still fresh in your mind. Taking and passing ASE tests leads to certification and reflects achievements, grants professional credentials, and provides for greater potential earnings. Most employers require ASE certification as a condition of employment.

Revised: 04/05
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AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM)
BACHELOR OF SCIENCE DEGREE
MACOMB COMMUNITY COLLEGE/UNIVERSITY CENTER
Curriculum Guide Sheet
Revised Fall 2001

STUDENT_____ STUDENT ID_____

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	-			
Automotive Culture	3.0	AHEM 360	-			
Management of Fixed Operations	4.0	AHEM 401	-			
Management of Variable Operations	4.0	AHEM 402	-			
Warranty & Customer Relations	3.0	AHEM 404	-			
Automotive Fuels & Lubes	4.0	AHEM 450	-			
Automotive Internet Marketing	3.0	AHEM 460	-			
Internship	4.0	AHEM 493	-			
Seminar/Project Assessment	1.0	AHEM 499	-			

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

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	3/4					
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
Communication Credits-12
Social Awareness Credit-9
Scientific Understanding Credits-7-8

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE ENGINEERING TECHNOLOGY 0+4
FALL SEMESTER
Curriculum Guide Sheet

ENTRY CRITERIA:

1. 2.75 GPA in major course work.
2. Overall 2.5 GPA

THIRD YEAR-FALL SEMESTER			CREDIT	GRADE
AUTO	310	Engine Air Flow Analysis (Sophomore Status, AUTO 114, MATH 116)	3	
MATL	341	Material Selection Metals	3	
ENGL	311	Advanced Technical Writing (ENGL 211 or 250)	3	
MATH	126	Algebra & Analytic Trigonometry (C- IN MATH 116) OR MATH 130	4	
ELECTIVE		Emphasis Area	3	

THIRD YEAR – WINTER SEMESTER				
AUTO	320	Dynamometer Analysis (Sophomore Status, AUTO 114)	3	
COMM	221	Small Group Decision Making	3	
MATH	216	Applied Calculus (C- IN MATH 126 OR MATH 130)	4	
ELECTIVE		Cultural Enrichment	3	
ELECTIVE		Emphasis Area	3	

FOURTH YEAR – FALL SEMESTER				
AUTO	450	Automotive Fuels and Lubes	3	
PHYS	212	Introductory Physics II (C- IN PHYS 211)	4	
ELECTIVE		Social Awareness	3	
ELECTIVE		Emphasis Area	3	

FOURTH YEAR – WINTER SEMESTER				
AUTO	460	Emission Systems (Senior Status)	3	
AUTO	480	Alternate Fuel and Vehicle System (Senior Status)	3	
ELECTIVE		Cultural Enrichment (200 or higher)	3	
ELECTIVE		Social Awareness (300 or higher)	3	
ELECTIVE		Emphasis Area	3	

FOURTH YEAR – SUMMER SEMESTER				
AUTO	493	Internship	4	

Management Option

AHEM	301	Auto. Market/Distribution I
AHEM	360	Automotive Culture
AHEM	460	Automotive Internet Marketing
AHEM	404	Warranty Procedure and Customer Relations

Diesel Option

HSET	300	Applied Failure Analysis
HSET	302	Fleet Management
HSET	403	Testing Systems & Analysis

Manufacturing Option
(choose any 4 courses)

MFGE	341	Quality Science Statistics
MFGE	342	Statistical Process
MFGE	442	Design of Experiments I
MFGE	443	Continuous Improvement
MFGE	313	Comp. Appl for MFGE
MFGE	352	Dsg. for Manaufacturing
MFGE	445	Reliability Engineering
PDET	412	Statistics/Ergonomics
PDET	413	Fluids/Thermodynamic

It is highly recommended that you take the ASE tests prior to graduating from your baccalaureate degree program and while the information is still fresh in your mind. Taking and passing ASE tests leads to certification and reflects achievement, grants professional credentials, and provides for greater potential earnings. Most employers require ASE certification as a condition of employment.

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FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE ENGINEERING TECHNOLOGY 0+4
FALL SEMESTER
Curriculum Guide Sheet

BS Degree Minimum General Education Requirements

(See the General Education webpage at www.ferris.edu/HTML/academics/gened/gened.html for details and acceptable courses in each program)

Communications Competence: 12 semester hours

Quantitative Skills: MATH 115 or ACT score

Scientific Understanding: 7/8 semester hours, including a least on lab course.

Cultural Enrichment: 9 semester hours, including at least one course 200 or higher.

Social Awareness: 9 semester hours, Including at least one Foundation course and at least one course 200 level or higher.

At least one Global Consciousness (G) course and one Race/Ethnicity/Gender (REG) course (within Cultural Enrichment of Social Awareness)

Meeting all requirements for graduation is the student's responsibility. Your advisor is available to assist you.

NAME OF STUDENT: _____ STUDENT I.D. _____

Total semester hours required for graduation: 126-128

NOTE: Meeting requirements for graduation indicated on this sheet is the responsibility of the student. The student is also responsible for meeting all FSU General Education requirements as outlined in the university catalog. Your academic advisor is available to assist you.

			CREDIT	COMMENT/GRADE
FIRST YEAR – FALL SEMESTER				
AUTO	111	Manual Transmission & Drivelines	4	
AUTO	112	Automotive Brake Systems	4	
AUTO	113	Automotive Electricity & Electronics	4	
ENGL	150	English 1	3	
FSUS	100	Ferris State University Seminar	1	
FIRST YEAR-WINTER SEMESTER				
AUTO	114	Automotive Engines	4	
AUTO	115	Suspension, Steering, Alignment Services	4	
AUTO	117	Electronic Fuel Management Systems (AUTO 113)	4	
MATH	116	Intermediate Algebra & Numerical Trigonometry	4	
SECOND YEAR-FALL SEMESTER				
AUTO	211	Automotive Automatic Transmissions **or AUTO 214**	4	
AUTO	213	Chassis Electrical/Electronics (AUTO 113)	4	
MATL	240	Introduction To Material Science	4	
ENGL	250	English 2 (ENGL 150)	3	
SECOND YEAR-WINTER SEMESTER				
AUTO	200	Service Area (C- in all AUTO classes)	6	
PHYS	211	Introductory Physics 1 (C- in MATH 116)	4	
_____	___	Cultural Enrichment Elective	3	
_____	___	Social Awareness Elective	3	

(OVER)

5/01
Pm/cksh04/ausv

SECTION 2

COLLECTION OF PERCEPTIONS

A. GRADUATE FOLLOW-UP SURVEY

INTRODUCTION

One source of feedback for improving program quality is the alumni of the program. To that end a cover letter and survey were updated from the previous program review and sent out to alumni dating back to 1987.

RATIONALE FOR SURVEY

In essence the theme of this survey was "how did we do in preparing you for your career?" What follows is a sample list of some of the question topics:

- Current salaries and starting salaries
- Types of additional training received
- Who helped in job placement
- When did internship take place
- Is Automotive Service Excellence (ASE) certification required for current employment
- Was PC training adequate
- Graduate satisfaction levels:
    - Academically
    - Advising
    - Problem solving skills
    - Written communications
    - Oral communications
    - Business management
    - Technical education
    - Internship
- What skills do you feel are the most desirable for your current position?
- What coursework would have benefited you the most, that you did **NOT** take at Ferris State University?

A copy of the cover letter and two page alumni survey follows this page.

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

Automotive and Heavy Equipment Management

February, 2006

Dear AHM Graduate,

All academic programs at Ferris State University are reviewed every five years. Part of the review process includes surveying graduates of that program area. In an ongoing effort to improve the quality of the Automotive and Heavy Equipment Management program (AHM) and to better serve our students, we are asking for your help. Please fill out the enclosed survey document and return it in the enclosed postage-paid envelope.

Your time and effort is greatly appreciated and is extremely important to us. Should you have any questions, please call our AHM faculty office at 231/591-2361.

The AHM faculty wish you well in your career and thanks again for your cooperation.

Sincerely,

Dan Vander Woude

Dan Vander Woude
Associate Professor

enclosure

708 Campus Drive, AUT 101
Big Rapids, MI 49307-2281

Phone: (231) 591-2361
Fax: (231) 591-5982
Web: www.ferris.edu

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 preparation 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)

Between Junior / Senior year	
During Senior year (before 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

Were you hired by your internship employer? Yes No

Is ASE certification required for your current position? Yes No

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

	Use on regular basis (yes / no)	FSU training was adequate (yes / no)	Name of software
Operating system			
Word processing			
Spreadsheet			
Web page			
Data base			
Presentation			
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					
My management education benefits me in my current position					
The AHM internship benefited me, in terms of career path selection					
I would recommend the AHM program at FSU 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 the AHM program: _____

_____

_____

_____

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

NAME _____

ADDRESS _____

CITY STATE & ZIP _____

PHONE # _____

E-MAIL _____

METHODOLOGY / RETURN RATES

The alumni office was contacted early in the process to gather alumni names and addresses. A current list of alumni (346) dating back to 1987 was gathered and forwarded to the University mail room. The final draft of the survey was provided to the University copy center along with the address for the postage paid return envelope. The copy center reproduced the surveys and envelopes which were then forwarded to the mail room. The addresses of alumni were printed on the envelopes and sent out mid February, 2006.

Over the course of the next two months, 90 surveys were returned. Given the total number of surveys sent out (346) this indicated a response rate of 26%. This was less than was hoped for; however the results were similar to the alumni survey for the previous program review in the year 2000.

DATA ANALYSIS

The data was sorted and then analyzed based on the total number of surveys returned (90). The number of returns from alumni who graduated in the years 1987-1993 was only 1. The number of returns from alumni of 1994-2000 was 39. The highest number came from the years 2000-2005 at 48. Over half (53.3%) of the surveys returned were from graduates of the last five years.

Current Job Titles

The positions were divided into three categories: wholesale, retail, and other. *Wholesale* employment implies an original equipment manufacturer (OEM) or a supplier/vendor. *Retail* employment implies a dealership or an aftermarket (after the sale) repair facility. *Other* employment can be categorized as working in other industries related to the automotive and heavy equipment industry. Given the job titles that were listed on the surveys, the following chart indicates the distribution:

Job Title Category	Number	%
Wholesale	61	67.8
Retail	16	17.8
Other	12	13.3

An interesting trend was observed in the category of "other". Of the twelve alumni in this category, half (6) indicated that they had chosen a career in teaching. The titles indicated secondary, post-secondary, and corporate education positions.

The following is a list of job titles held currently by some of the 90 alumni:

Current job title
Product Concern Engineer
Account Service Rec – MIC
Assistant Production Manager
Warranty Operations Group Leader
Systems Analyst
Automotive & Marine Technology Instructor
Service Engineer
Field Technical Specialist
Field Technical Specialist
Technical advisor
Problem solver engineer
Product specialist
Purchasing Agent
Web developer/ Part sales
Quality Engineer
Field Service Engineer
Technical Service Engineer
Shop Manager

Service Engineer / Subject Matter Expert
Honda PACT Instructor
Instructor
Design Engineer GM
Product Engineer
Field Technical Specialist
Universal Technical Institute Hawaii / Pacific Representative
CSR Customer Service Rep
Ford Engineer
Area Manager
District Manager
Technical Training Development Specialist
Application Engineer
Infantry Platoon Leader
Six Sigma Black Belt
District Manager
Market Representation
GM Technical Assistance Consultant
OEM Technical Service Supervisor
Segment Analyst
Teacher
Michigan Shop Foreman
Mechanic
Automotive Instructor
Product and Technical Support Manager
Application Engineer
Product Support Engineer
Product Development Manager
Program Manager
Associate Service Equipment
District Parts & Service Mgr
Body Shop Manager
Automotive Paint & Body Specialist
Parts Counter Sales Associate for John Deer
Engineer
Quality Engineer
Global Brand Quality Manager, International Product Center
Automotive Teacher
Technician
National Flat Service Mgr.
Marina Service Manager
Supervisor, Salary Personnel
Service Manager
Escanaba Township Zoning Board Sec., Heavy Equip Operator/ Mechanic
Service Advisor
Supplier Quality Engineer

Estimator/ Bodyshop
Distribution Specialist
Sales manager/ Owner
Service Engineer
Group Leader – RCS
Service Engineer
District Sales Manager
V.P. Sales
Service Manager
Collision Shop Manager
Service Readiness Engineer
Account Manager
Product Support Sales Representative/ Generator Sales Engineer
District Service Manager
Quality Engineer
OEM Service Manager
Warranty Specialist
Product Development Manager
GM Advanced Service Ability of Design Engineer
Release Engineer
Technical Service Information specialist
Regional District Manager

Average Starting Salary

The average starting salary of all 90 alumni from 1987-2005 was $36,153. The average starting salary of alumni who had graduated in the last five years (2000-2005) was $38,019.

Year of Graduation (Range)	Average Starting Salary
1987-2005 (All alumni)	$36,153
2000-2005	$38,019

Time with Current Employer

The average term of employment for with current employer stood at **4.4 years** for all 90 alumni.

Current Salary

The current salary statistics indicate a majority of alumni currently earn over $50,000 per year (70.2%) as indicated in the following table:

	#	%
<$30,000	6	6.6
$30,000-$40,000	9	9.9
$40,000-$50,000	12	13.2
$50,000-$60,000	24	26.4
$60,000-$70,000	20	21.9
>$70,000	20	21.9

70.2%

Timing: Acceptance of First Position

When asked about when they accepted their first position the majority of alumni indicated that it was during their Senior year. A lesser amount accepted after graduation and even less indicated between their Junior and Senior year.

	#	%
Between Junior / Senior year	4	4.7
During Senior year (before graduation)	46	54.1
After graduation	35	41.2

Timing of Internship

When asked about whether or not the internship was done in the last semester of the Senior year the results were almost evenly distributed. This trend continues from previous program review report (2000) An even number choose to intern either between the Junior and Senior year and after graduation as compared to those who decide to attend summer school between the Junior and Senior year and to intern in their last semester.

Did you intern as a last semester senior?	Yes	%	No	%
	45	50.0	44	49.8

Internship with Current Employer

When asked if they did their internship with their current employer it was interesting to note that a significant number (74.4%) of alumni indicated that they had either sought different employment after their intern experience or had changed jobs in the intervening years since graduation.

Did you intern with your current employer?	Yes	%	No	%
	21	23.3	67	74.4

Hired by Internship Employer

When asked if they were hired by their internship employer a surprising number (73.3%) indicated that they sought other employment opportunities after their internship was completed.

Were you hired by your internship employer?	Yes	%	No	%
	33	36.7	55	73.3

Automotive Service Excellence (ASE) Certification

Since the 2000 program review a number of employers have suggested that the faculty encourage students to take the Automotive Service Excellence (ASE) exams. For some it is a critical component in making hiring decisions. The survey results indicate different story. Only 21.1% of the alumni indicate that being certified is a requirement for their current position while 76.7% say it is not. One contributing factor may be that the majority of the entry-level positions in the industry require or value certification. Alumni who have moved into management positions often do not need to be certified by ASE.

Is ASE certification required for your current position?	Yes	%	No	%
	19	21.1	69	76.7

Help with Job Placement

Just as was reported in the 2000 program review, the responses for this question indicated that alumni found the program faculty to be the most helpful in finding job placement (52.2%). The relationships the faculty have established through intern visitation and campus recruiting visits by employers has been and continues to be extremely important. To a lesser degree alumni report that their own initiatives through classified ads (13.3%) and personal connections (23.3%) were helpful.

	#	%
AHM program faculty	47	52.2
Classified ads	12	13.3
Personal connections	21	23.3
Other	9	10.0

Post-Graduate Training

When asked about the types of training received since graduation, the most significant number was additional technical training (72.2%). As many graduates find employment with vehicle manufacturers, it stands to reason that product specific training would be mandated by their employer. Close seconds to technical training were the three categories of management (54.4%), computer software (51.1%), and personal development (47.8%). Only 12.2% of the alumni indicated that graduate study was taken. Program faculty regularly encourage post-graduate study as competition for career advancement in the industry increases. Perhaps this statistic will change at the next program review as future alumni recognize its importance for their future.

	#	%
Seminars:	6	6.7
Management	49	54.4
Personal	43	47.8
Software related	46	51.1
Technical	65	72.2
Other:	19	21.1
Graduate study	11	12.2

Computer Software Use

This section of the survey has always yielded interesting results. It is obvious that the majority of alumni make use of e-mail and the Internet (95.6%) with word processing (87.8%) and spreadsheet use (81.1%) running second and third.
Presentation software (PowerPoint) was introduced to the students in 1998 and Web page software (FrontPage) in 2002. This leaves a significant number of alumni without the classes which may account for the low numbers indicating satisfaction with the adequacy of this training.

	Use on regular basis	% Yes	% No	FSU training was adequate (yes /	% Yes	% No
Operating system	68 yes / 5 no	75.6	5.6	37 yes / 13 no	40	14.4
Word processing	79 yes / 4 no	87.8	4.4	61 yes / 6 no	67	6.7
Spreadsheet	73 yes / 7 no	81.1	7.8	58 yes / 10 no	64	11.1
Web page	38 yes / 37	42.2	41	29 yes / 24 no	32	26.7
Data base	46 yes / 29	51.1	32	25 yes / 32 no	27	35.6
Presentation	57 yes / 18	63.3	20	50 yes / 12 no	55	13.3
Internet, e-mail, etc.	86 yes / 2 no	95.6	2.2	47 yes / 20 no	52	22.2

The types of software used by alumni in their daily work varied by job title. Those working in a retail environment regularly use business specific data base software also known as Dealer Management Software (DMS). Alumni working in the wholesale side of the industry commonly make use of Microsoft products and industry specific data base software.

A review of the most common software used is indicated by the results in the following table:

Software Name	#	%
Microsoft Word	77	85.6
Microsoft Excel	72	80.0
Microsoft Power Point	57	63.3
Microsoft Front Page	7	7.8
Microsoft Access	21	23.3
DMS & Industry D-Base	14	15.6

Satisfaction with Academic Preparation

Survey Question	SA + A	Neutral	D + SD
My AHM degree helped me or is helping me achieve my career goals	90%	4%	6%
I am satisfied with my academic preparation at FSU	92%	4%	3%
I am satisfied with the AHM advising I received at FSU	85%	9%	6%
The AHM courses I took at FSU helped me develop problem solving skills necessary for on-the-job success	88%	12%	4%
The AHM courses I took at FSU helped me develop strong written communication skills	91%	8%	1%
The AHM courses I took at FSU helped me develop strong oral communication skills	91%	8%	1%
The AHM courses I took at FSU helped me develop strong business management skills	88%	10%	2%
My AHM education at FSU was a positive factor in my employer's decision to hire me	79%	19%	2%
My technical education benefits me in my current position	87%	8%	5%
My management education benefits me in my current position	77%	13%	10%
The AHM internship benefited me, in terms of career path selection	64%	25%	11%
I would recommend the AHM program at FSU to prospective students	91%	7%	2%

- SA + A = Strongly Agree and Agree responses
- D + SD = Disagree and Strongly Disagree responses

According to the 2006 Alumni Survey, more than 90% of the alumni agreed or strongly agreed that their AHM degree helped them achieve their career goals; that they were satisfied with their academic preparation at FSU; that the AHM courses helped them develop strong written and oral communication skill; and that they would recommend the AHM courses to prospective students. These results indicate a strong general satisfaction with the AHM program.

More than 80% of the alumni agreed or strongly agreed they were satisfied with the AHM advising they received, that the AHM courses helped them develop problem solving skills, that AHM courses helped them develop strong business management skills, and that their technical education benefits them in their current position. These results indicate we could further improve our advising, how we teach problem solving and

Automotive + Heavy Equipment Management

APPLC 2006-2007

section 2 of 3

business management in the department. On the whole, however, these results are positive.

In contrast, the results of three questions indicate areas that need improvement. First, only 79% indicated that they agreed or strongly agreed that their AHM degree was a positive factor in their employers' decision to hire them. Another 19% marked a neutral response, and 2% disagreed. This result, although difficult to interpret, may indicate that alumni do not perceive that an AHM degree was entirely necessary for securing their present position. Likewise, only 77% of those surveyed agreed or strongly agreed and another 13% were neutral and 10% disagreed that their management education benefits them in their current position. Given greater satisfaction with the management skills learned in the AHM department, as indicated above, the AHM department should evaluate the quality and relevance of each of the required management courses (AHM 401: *Management of Fixed Operations,* AHM 402: *Management of Variable Operations* and a management course in the business department, MGMT 301). Finally, only 64% agreed or strongly agreed; another 28% marked a neutral response, and 11% disagreed that their internship that their AHM internship benefited them, in terms of their career selection. This result indicates that the department should further investigate specific reasons for this dissatisfaction and develop a plan for improving or revising internship requirements.

Most Desirable Skills for Employers' Needs

When asked to rank what skills were the most desirable for current employer needs, the alumni responded with the highest priority placed on communication skills at 52.2%. This was followed by technical skills at 38.9%, management and writing skills tied at 22.2%, problem solving skills at 13.3%, and computer skills last at 3.3%. A high priority is placed on written and oral communication in all of the courses in the AHM program and this most assuredly will continue.

Courses Not Taken at Ferris

When asked which courses would have helped alumni prepare for their current position which were **not** taken at Ferris (but should have), the responses were mixed. Several responses focused on additional business training, while others listed personal development workshops often offered by employers. The best way to understand the responses to this question is to view the actual statements in the following table:

1	Working more with excel and making charts and graphs from data
2	Something to develop more analytical skills
6	Could there be an office politics class?
7	Education classes
8	Mandate a computer class. The class should offer in depth training with Microsoft based programs, especially excel.
10	We used photography in our projects, but not digital.
11	Technical writing
14	Business management courses and more accounting courses
15	More computer and internet classes
16	Some sort of course that touches on 80's or corrective actions since all OEM's and suppliers use these everyday.
17	Time management, customer interaction
18	NA
19	More business courses
20	None
22	Technical Education
23	Shorten time to prepare for presentations to be able to make presentation in real world with only 1-2 days to prepare.
24	Hybrid
25	Personal development
28	C3P - related courses
29	More business management focus
30	Auto Body (for paint & body related warranty / CR issues)
31	How to deal with corporate big business bureaucracy - six sigma strategies
33	ROTC
34	Data manipulation & data mining
35	More management courses would have been helpful
36	More excel training
38	More computer training, this was not so big when attending (lack of world use at time)
39	More classes in accounting & finance along with generic business curriculum
40	Teaching courses
41	Budgeting – 101 - how to set & manage a budget
42	None
43	None
44	Microsoft access

45 A real estate curriculum which I've heard is on the horizon
46 World history from the 1500 to present
47 Technical/Engineering above the normal Auto Technology courses.
49 Marketing, advertising
50 The automotive technology courses
51 Most employers do not understand how to apply the AHEM degree but what should be used is AHEM E Engineering; maybe we could get a job, or internship.
52 Learn Reynolds & Reynolds and ADP dealer software (not offered)
53 Auto Body
54 Organization to create a optimal work area
55 Heavy Equipment technical classes program needs to focus more in the heavy equipment industry
57 Statistics, technical problem solving, process (mfg.) controls
59 Any liberal arts course
62 A small business class
63 Leadership / teambuilding courses
64 Dealership finance & management
65 Usage of different computer programs on the job is my weakest area.
66 Pressure handling tactics
67 GD & T, Six Sigma
68 Some management skills geared towards the body shop
69 More excel
71 Time mgt, spread sheets, power point
72 Risk mgmt & anything related to customer interfacing
74 None
75 Technical courses taken at community college
76 The computer was in it's infancy when I graduated
78 Another speech class/ presentations
79 Engineering, technical, proper use of emails
80 Autobody management (masters)
81 Better computer courses
82 Dealing with legal issues/ irate customers
83 Quality engineering courses
84 Anything to do with statistics and six sigma
85 More computer applications classes
86 More excel training, more marketing and more business math & forecasting skills
88 Electrical engineer courses
89 Web site related courses targeting design and set-up of sites
90 Every course I took was relevant. Some courses cannot replace real world training

Suggestions for Improvement for the AHM Program

The recommendations for improvement were quite varied. Although numerous, it is worth listing them for review:

1 Work with pulling data from database and importing into Excel to make every type of chart and graph imaginable
2 See above, other than that, it was great
5 I had a great experience at FSU and all of the professors in the AHM program assisted me greatly in developing the needed skills to obtain my current position.
6 More of focus on the Corp. Auto Supplier World and less focus on the Dealership life!
10 1. A digital photography course. Photography skill, photo correction and manipulation. 2. An I.T. type course which gives basic knowledge of computer hardware as well. 3. Multi - tasking and organization/prioritization. There are many assumptions made about your computer hardware and software knowledge in the business world. You can't get enough computer training.
11 Mock interviews, focus on how to manage people
13 Emphasize personal contacts get mobs more often than anything else
14 We all could run a dealership, but if we were working in a manufacturing world things are different. Also if we could learn more about working with people who work underneath vs that would be great. Not that I will refer.
15 Include more aftermarket products & accessories. More of the industry jobs are available in the aftermarket industry teach a class about the aftermarket or get more aftermarket companies in for jobs and interns
16 I feel that when I was in AHM the focus was mainly on working for manufacturers or dealers with the state of the industry I believe other areas of the industry should be focused on such as the supply base.
17 More concentration on dealer financial statements and how to make adjustments to business
18 The state of the auto industry is making it tough to obtain jobs other than technical or engineering. I learned a lot during the AHEM program but not very many positions in the field now are looking for business oriented individuals.
19 Sit down one on one with students and help guide them in the right direction
23 More emphasis on stress related items where there isn't much time to prepare to think faster on feet with high level presentation where high detail is not needed at that point
24 Add more quality assurance emphasis
25 Continue to focus on presentation and communication skills. The strong presentation skills I gained from AHM gave me an advantage over other company associates.
26 I remember I used to have a hard time w/ excel when I was at Ferris
27 Perhaps more lecture on extended warranties
28 Technical courses w/design for serviceability emphasis. Fluids/lubes is an

example of a good technical class today - expand these type of technical classes into different component areas.

29 Better advisor interaction. Equal amount of time were not spent w/ each student.

30 More Excel training is needed. Although I do not feel behind my co-workers (far from it) more excel will only benefit future placement, retail selling in dealerships srv & parts dept.

31 Just keep up with the technology related to the automotive industry

34 As a hiring Mgr I see the need to be able to extract data from a database and analyze it to identify trends, visually depict the data and provide high level summering of the data.

35 Possibly implement more marketing into program. - But overall it was a great program.

39 Most of my buddies I graduated with are employed in the auto/manufacturing industry, but relatively few in car dealership settings. Therefore, a more business - oriented subject matter including more emphasis on finance would seem more appropriate.

40 A larger amount of time should be spent on parts sales, as these are a substantial part portion of more graduates jobs after graduation. Also, sales training should involve new cars etc. and be taught within the AHM department, not through business.

41 Very good program - focus a little more on heavy equip. world.

42 The computer work involving word perfect, presentation, spreadsheets, PowerPoint etc, I seemed to be kind of thrown into (except WordPerfect). More help in these areas would've helped. Maybe having some kind of lab where everyone had a computer and there was a instructor there to help you. Doing the spreadsheets for example in a lab setting with a instructor their to help would've been nice. Instead I was almost on my own to do them. If it hadn't been for other students around in the computer lab helping me out, I'd of never completed it.

43 I remember the program being geared for service writers. Only 2 students I knew went into that career. Maybe the program needs to change its career direction.

44 Pursue recruiting relationships with more automotive "suppliers" to drive graduates into more direct hire scenarios and reduce contract hires.

45 Stress finance harder

46 More excel exercises and access training

47 AHM seems to be more directed more toward the auto sales segment of the business. I would like to see more service & quality / engineering

49 As a graduate of the 1995 program. I would like to see the program expand into marketing. Being labeled as "technical" in an automotive manufacture limits your progress in the marketing, sales, & service career path.

51 Add these courses; BLAW 321 taught by Prof. Vermeer, ISYS 204, and 304, ISYS 212, BUSN 209, ACCT 201, 202, 310, 312. INSR 243, 375, MGMT 302, 371, 373, SOCY 225, 230, 242, 340. Students should have CDL class A&B driver's licenses along with Master ASE certifications. And be willing to work for peanuts for the next ten years or until the economy gets better. If it ever

gets better. Now to be employed a person has to pass the following steps: 10 year background check, credit check, citizenship check, drug and DOT check - and whatever else they think, should be checked. The only employers that will readily accept an AHEM student are automobile dealerships, insurance companies and federal, and some state agencies in Michigan. I suggest to stay in college and get their MBA's and PhD:; there are no meaningful jobs out here! PS AHEM graduates can also get truck driving jobs, if they have zero points!

54 Get more up to date information from dealers and start incorporating information about hybrid vehicles.

55 Basic technical heavy equipment classes to get students familiar with components truck, construction equipment and agricultural

57 My FSU education centered around employment at dealerships & OEM. Positions working with dealerships, FSU/AHM should consider adding courses in statistics, technical problem solving, mfg. process control, etc. That would prepare students to work in other areas such as quality / engineering

63 Management skills courses were lacking in focus regarding team leadership and organizational leadership. I was forced to learn this myself. Personal leadership courses such as Covey would also have been positive.

64 None. The program prepared me well for success in my given field

65 Keep up the good work. The one area I didn't have enough knowledge on when I got on the job: personal computer, specifically (Microsoft project. I mention this realizing that the AHM program can't teach every little thing needed on the job, some have to be self taught.

66 Keep up the professional atmosphere students need to realize the real world is similar to class

67 nothing! It's a great program for people working in the Auto industry! I've used it. And the skills I've learned on the job in my current position

68 Some basic management & bvidale aimed towards the body shop ie: reading doc sheets, management or basic how to's on body shop management

71 Comment - FSU AHM grads are at a disadvantage when they interview for a job that requires technical skill. It could be 2-3 years since an AHM candidate puts their hands on a car or training

72 Six Sigma is a huge tool within my company; track the students to become more analytical in their problem solving so they can find intelligent solutions to problems & drive improvement within their organizations.

74 More in-depth training on current DMS programs utilized by dealerships (still used system 36/AH400 when I attended). Increase focus on variable operations.

75 I would prefer for the course to be less focused on the Automotive retail / wholesale arena. Classes that deal with equipment or fleet management would have better suited my current career path

76 You need to prepare these youns skulls full of mush as to how politics/economics effect every level of life/business if you need a automotive politics professor I am ready & willing to teach

78 I think more body shop material would definitely be helpful. Maybe even give up the auto material class and give an option for service students and / or body shop students. More short presentations would have helped. Just short

sales pitches

Work on communication especially with email and technical skills. Need to be
79 less dealer based and more corporate based.
80 More profit analysis and PowerPoint presentation skills
81 Updated technology
82 Keep up the good work! Program is well recognized in the industry
83 Quality education & focus on new technologies in electronics & systems

Add mini tab to the list of software. Additionally adding a more diverse student mix to AHM, my company values diversity & expects a certain % of diverse
84 candidates from each school where recruiting takes place.

More business OEM type classes and less training about working in a
85 dealership.

Focus on more forecasting and basic business math. Advanced excel training should be explored. A marketing class strictly focused on advertising and
86 demographics.

Focus less on dealership management and more on the manufacturer and supplier side of the business. Bring in a lot of guest speakers (either in class or in after hours seminars) to discuss their business roles and the many opportunities available fo students with an AHM degree. I still don't know all of the positions that I could fill. When I graduated I thought the only jobs I could aspire to have would be either a dealer service manager or a manufacturer service representative. Another suggestion is to enforce the professionalism of the students in class. A lot of students in our class liked to goof off, inspiring
87 a "slacker" feel to the class & making it difficult to learn.
88 Instructor's knowledge of some courses lacked expertise

Other than website design, encourage students to become ASE certified. While not a requirement for me, I believe my certification was the determining
89 factor in being hired for both positions I have been involved with.

The program is excellent as is! The knowledge I acquired helped me greatly in
90 my current position.

B. EMPLOYER FOLLOW-UP SURVEY

INTRODUCTION

Approximately 200 employers were recently surveyed (April, 2006) to obtain information regarding their satisfaction with the preparation of AHM graduates employed by them. They were asked to rate the strengths and weaknesses of the graduates in four 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. The following is a list of the four areas this survey focused on.

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

Job Description of Graduate(s)
- Sales
- Marketing/Advertising
- Customer Relations
- Communications
- Technical
- Engineering/Research
- "Other"

Employee Skill Level
- Writing
- Interpersonal Communication
- Public Presentations
- Technical Knowledge
- Teamwork
- Time Management
- Computer Use
- Other areas

Employment Criteria
- Minimum GPA requirements
- ASE (Automotive Service Excellence) Certification required
- Qualifying examinations used
- Future hiring decisions

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

METHODOLOGY / DIFFICULTIES / RETURN RATES

The panel developed the survey and mailed it to employers in early April 2006. Employers had the option to either mail-in the survey using pre-paid business-reply envelopes, or by fax.

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.

A total of 197 surveys were sent to current and past employers of AHM program graduates. Of that number 47 (23.9%) were returned undeliverable by the U.S. Postal Service. A total of 24 (16% of delivered surveys) were returned completed, and are being used for this portion of the review.

DATA ANALYSIS

Employer Profile

This section of the survey provided a look at a diverse group of companies and corporations where the graduates presently are employed. The range included automobile manufacturers, technical staffing vendors, heavy equipment and engine manufacturers, insurance companies, and aftermarket warranty providers. The following 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
Diesel Engine Manufacturer	Customer Support, Sales, Warranty Administration, Parts Marketing
Automotive Parts	Service Training Development
Automobiles	Test Lab
Automobile Manufacturing	Vehicle Development, Engineering, Product Quality, Service Support
Heavy Duty Truck Sales	Management Trainee Program
Heavy Equipment Sales and Service	Service, Sales, Parts
Automobiles	Service Engineering
Automobiles	Technical Assistance Center
Automotive Sales & Service	Service
Extended Service Contracts	Mechanical Repair Claims
New/Used Vehicle Sales/Service	Service Department
Automobile Dealer	Sales & Marketing, General Management
Insurance	Auto Claims
Automobile Manufacturing	Technical Operations

Diesel Engine Manufacturing	Technical Service, Engineering
Aftermarket Parts	Sales
Diesel Engines	Customer Assistance

The total number of employees listed by employers was **1452.** It should be noted that several of the large corporation employers left this question blank and placed a "?" in the space provided. The total number of program graduates listed was **117.** Automobile manufacturers employed the largest numbers of graduates.

Job Description of Graduate(s)

This section asked each employer to check off as many boxes as applicable, concerning the job description of the program graduates. The majority of the program graduates are employed in careers that rely heavily on their technical background. Most stated that customer relation skills were also critical. The following is the percentage of employers that checked off each box. Many respondents checked off more than one box, so the numbers do not correlate with the number of returned surveys. Two respondents checked the 'other' box, then wrote in the word 'warranty' indicating the program graduates worked in a warranty department, either processing warranty claims at the retail level, or handling warranty administration duties at the corporate level. One employer left the entire back page blank, so the number of respondents used in this section is only 23.

Sales	48 %
Marketing/advertising	35 %
Management/Supervision	43 %
Customer Relations	61 %
Communications	39 %
Technical	78 %
Engineering/Research	30 %
Other (Warranty)	9 %

Employee Skill Level

This section asked the employers to rate program graduates on a number of skills. They had to pick from four different levels:

Well Prepared
Capable
Poorly Prepared
Not Observed

A few respondents tried to pick 'between the lines' indicating the graduates fell somewhere in between, but it was hard to evaluate, so we picked the box the 'x' actually fell in, unless it was exactly on the line, in which case both boxes got tallied. This happened only once.

-- Writing

When asked to evaluate the preparation of the AHM program graduates in the area of writing skills, 14 employers' responses were "well prepared" (61 %) and 6 were at "capable" or 26 %. Two employers responded with "poorly prepared" (9 %). Please note that this was the only "poorly prepared" response in the entire survey.

One employer responded with a "not observed" answer.

Writing

Well Prepared	Capable	Poorly Prepared	Not Observed
14	6	2	1
61%	26%	9%	4%

-- Interpersonal Communication

When asked to evaluate the preparation of the AHM program graduates in the area of interpersonal communication, 15 (65 %) employers responded "well prepared" and 8 (35 %) responded as the graduates being "capable".

No employer responded "poorly prepared" or "not observed."

Interpersonal Communication

Well Prepared	Capable	Poorly Prepared	Not Observed
15	8	0	0
65%	35%	0%	0%

-- Public Presentations

When asked about the presentation skills of the program graduates, ten employers responded that the program graduates were "well prepared" (43 %). Nine (39 %) employers responded with the graduates as being "capable".

Four (17 %) employers reported "not observed".

Public Presentations

Well Prepared	Capable	Poorly Prepared	Not Observed
10	9	0	4
43%	39%	0%	17%

-- Technical Knowledge

Fifteen (65 %) of the employers rated the graduates of the program as "well prepared". Eight (35 %) responded that they were "capable."

No employer responded "poorly prepared" or "not observed."

Technical Knowledge			
Well Prepared	Capable	Poorly Prepared	Not Observed
15	8	0	0
65%	35%	0%	0%

-- Teamwork

It is obvious, by the response to this question, that employers value teamwork. When asked to rate the preparation of the program graduates in this area, 20 (87 %) said that they were "well prepared" and three (13 %) said that they were "capable".

No employer responded "poorly prepared" or "not observed."

Teamwork			
Well Prepared	Capable	Poorly Prepared	Not Observed
20	3	0	0
87%	13%	0%	0%

-- Time Management

When asked to rate the preparation of the program graduates in this area, 13 (57 %) said that they were "well prepared" and ten (43 %) said the program graduates were "capable."

No employer responded "poorly prepared" or "not observed."

Time Management			
Well Prepared	Capable	Poorly Prepared	Not Observed
13	10	0	0
57%	43%	0%	0%

-- Computer Use

When asked to rate the preparation of the program graduates in this area, 16 (70 %) said that they were "well prepared" and 7 (30 %) said that they were "capable."

No employer responded "poorly prepared" or "not observed."

Computer Use			
Well Prepared	Capable	Poorly Prepared	Not Observed
16	7	0	0
70%	30%	0%	0%

-- Other Skills

When asked to list any other academic areas not covered by the list, above, three employers wrote in answers: printing (handwriting it was assumed), critical thinking, and welding. The other 21 surveys were blank.

EMPLOYMENT CRITERIA

-- Minimum GPA

Four employers (17 %) said they require a minimum grade point average, while17 (74 %) said they do not. All four employers responding that they do have a minimum grade point average then filled in the next blank with the same answer – 3,0 GPA.

-- ASE (Automotive Service Excellence) Examination required

When asked if the employer's company required an ASE certification exam, eight (35 %) responded that they do and 15 (65 %) do not use ASE certification as a hiring criteria.

-- Qualifying Examinations

When asked if the employer's company required any type of qualifying exam, seven (30 %) responded that they do and 15 (65 %) said they do not use any type of qualifying examination. Of those that do, five employers use some sort of technical assessment test instrument, while other tests listed varied from keyboarding, to multiple interviewing techniques.

-- Continued Hiring of Graduates

When asked if they would continue to hire graduates of the AHM program, 22 employers (96 %) responded that they would, and no employer stated that they would not. This one question may well be the highlight of this whole survey, employers like our graduates!

RESULTS

The employers of AHM program graduates appreciate the balance that the program provides, between communication skills 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 two, unique, areas. Again, EMPLOYERS LIKE OUR GRADUATES!

FERRIS STATE UNIVERSITY

Spring, 2006

Dear Friend of Ferris State:

All academic programs at Ferris State University are reviewed every five years. Part of the review process includes surveying employers that hire Ferris State University interns and graduates. In an ongoing effort to improve the quality of the Automotive and Heavy Equipment Management program (AHM) and to better serve the industry, we are asking for your assistance by completing the enclosed survey document. It can be mailed using the enclosed postage-paid envelope, or faxed to us (231.591.5982). Please reply by April 28, 2006.

Your time and effort is greatly appreciated and is extremely important to us. Should you have any questions, please call our AHM faculty office at 231.591.2361.

We appreciate your continued support of the AHM program. Thank you in advance for your cooperation.

Sincerely,

Greg Denny

Greg Denny
Professor
Automotive and Heavy Equipment Management (AHM)

enclosure

AUTOMOTIVE CENTER
708 Campus Drive, Big Rapids, MI 49307-2281
Phone 231 591-5981 Fax 231 591-5982

Employer Survey
Ferris State University

Automotive and Heavy Equipment Management Program

To keep our program current with the marketplace we need feedback on the preparation of our graduates or interns which you have hired. Please take a few minutes to complete this survey and return it to us, either by using the enclosed postage-paid envelope, or FAX (231.591.5982). Thank you !

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 department(s) _____

Job Description of Graduate(s)

Please check all the categories that apply:

1. Sales	
2. Marketing / Advertising	
3. Management / Supervision	
4. Customer Relations	
5. Communications	
6. Technical	
7. Engineering / Research	
8. Other (please complete box, below)	

PLEASE SEE OTHER SIDE

Employee Skill Level

Please check one box for each skill listed:

SKILL	WELL PREPARED	CAPABLE	POORLY PREPARED	NOT OBSERVED
9. Writing				
10. Interpersonal Communication				
11. Public Presentations				
12. Technical Knowledge				
13. Teamwork				
14. Time Management				
15. Computer Use				

16. Please list any other academic areas, not listed above, graduates should possess.

_____

_____

Employment Criteria

Please circle YES or NO and fill in the blanks, if applicable:

17. Does your company require a minimum GPA? Yes No

18. If yes, that minimum is _____(assume highest GPA is 4.0)

19. Is ASE certification required? Yes No

20. Do applicants take any type of qualifying examination? Yes No

21. If yes, please describe: _____

22. Will you continue to hire graduates from Ferris State University's Automotive and Heavy Equipment Management program? Yes No

THANKS FOR YOUR TIME !

PLEASE SEE OTHER SIDE

C/D. STUDENT SURVEYS

INTRODUCTION

All AHM students where surveyed during class in March of 2006. On-campus surveys were completed in the three sections of AHEM 303, for juniors, and in AHEM 404, for seniors. Off-campus (Macomb) students where surveyed in AHEM 402. Because there is open enrollment at Macomb, these surveys represent a mix of third and fourth year students.

RATIONALE FOR SURVEY

The survey was used to obtain demographic information about AHM students and to gather information on student perceptions of the overall quality of the program, the curriculum, the faculty, and the knowledge and skills they are obtaining/or have obtained.

METHODOLOGY / DIFFICULTIES / RETURN RATES

Since the surveyed was administered during class, and after following up with students individually that were absent the day of the survey, faculty members were able to get a 100% response rate. A total fo100 surveys were completed. Of the 100, 91 or 91% were AHM majors, 4 or 4% were students in the Automotive Engineering Technology (AET) program taking the management option – which includes four AHM classes and 5 or 5% of those surveyed were dual majors, majoring in both AHM and AET. The 100 surveyed represented a mix of 57 juniors and 43 seniors.

DATA ANALYSIS

See the following pages for a sample of the survey instrument, followed by a sample of the survey with the summary data included on it.

FERRIS STATE UNIVERSITY

AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM) PROGRAM

_____ **1. Which academic program are you currently enrolled in:**

a. AHM
b. AET
c. Both AHM *and* AET
d. Other (Specify) _____

2. Which high school did you graduate from?

High School: _____

City, State: _____

3. Where did you receive your associate degree?

_____ **a. Ferris State**
_____ **b. Other (Specify below!)**

Name: _____

City, State: _____

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

_____ **a. Auto Service**
_____ **b. GM – ASEP**
_____ **c. Ford – ASSET**
_____ **d. DaimlerChrysler – CAP**
_____ **e. Auto Body**
_____ **f. Heavy Equipment**
_____ **g. Other (Specify)** _____

5. Designate the AHEM prefixed courses you have completed, *as well as* those you are currently enrolled in:

_____ a. AHEM 301
_____ b. AHEM 302
_____ c. AHEM 303
_____ d. AHEM 360
_____ e. AHEM 401
_____ f. AHEM 402
_____ g. AHEM 404
_____ h. AHEM 450
_____ i. AHEM 460
_____ j. Internship (AHEM 493 & 499)

6. **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

7. **How would you characterize your high school coursework focus?**

_____ a. College Prep
_____ b. Vocational / Technical
_____ c. Other (Please specify!) _____

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

_____ a. Yes
_____ b. No

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 Teacher
_____ d. Ferris State Alumni
_____ e. FSU Website
_____ f. Ferris Faculty Member
_____ g. Other (Who? Please specify!) _____

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

_____ a. High School Counselor
_____ b. Ferris Admissions Counselor/Recruiter
_____ c. High School/Career Center Teacher
_____ d. Ferris State Alumni
_____ e. FSU Website
_____ f. Ferris Faculty Member
_____ g. Other (Who? Please specify!) _____

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

_____ a. Work in the "Wholesale" (OEM) 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 for a "Government Agency"
_____ g. Work as a "Trainer" in industry
_____ h. Work in the "Insurance" side of the industry
_____ i. Work for a "Supplier"
_____ j. Work in a "Research & Development / Engineering Technology" position
_____ k. "Start my own business!"
_____ l. Continue on to graduate school – as a full-time student
_____ m. Other (Please specify!) _____

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

_____ a. Work in the "Wholesale" (OEM) side of the industry
_____ b. Work in the "Retail" side of the industry
_____ c. Work in "Fleet Management"
_____ d. Work as a manager/owner in the "Aftermarket"
_____ e. Work as a "Technical Writer"
_____ f. Work as a "Government Agency Manager"
_____ g. Work as a "Trainer" in industry or in public education
_____ h. Work in the "Insurance" side of the industry
_____ i. Work in a "Supplier Management" position
_____ j. Work in "Research & Development / Engineering Technology"
_____ k. "Start my own business!"
_____ l. Attend graduate school
_____ m. Other (Please specify!) _____

13. On a scale of 1 to 5, 5 being the highest, how would 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, how would you rate the AHM curriculum in the following areas:

_____ a. The development of management skills
_____ b. The development of verbal communication skills
_____ c. The development of writing skills
_____ d. The development of computer skills
_____ e. The development of teamwork/collaborative skills
_____ f. Faculty academic counseling assistance and availability outside the classroom
_____ g. Faculty teaching expertise within their program area
_____ h. Faculty involvement in providing internship and full-time employment information and career advice

15. On a scale of 1 to 5, 5 being the highest, how would you rate the general education curriculum in the following areas:

_____ a. "English" and "Communication" classes
_____ b. "Cultural Enrichment Electives"
_____ c. "Economics" and "Social Awareness Electives"
_____ d. "Scientific Understanding Electives"

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

Thanks for your assistance.

STUDENT SURVEY (with data)
FERRIS STATE UNIVERSITY

AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM) PROGRAM

1. Which academic program are you currently enrolled in:

	Total #	Percent of total #
AHM	91	91%
AET	4	4%
Both AHM and AET	5	5%
Other	0	0

2. Which high school did you graduate from?

In State	Out of state
80	20

3. Where did you receive your associate degree?

In State	Out of state
86 (59 – FSU)	14

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

Auto Service	61	57%
GM – ASEP	11	10%
Ford – ASSET	4	4%
DaimlerChrysler – CAP	1	1%
Auto Body	18	17%
Heavy Equipment	6	6%
Other (Specify)	6	6%

1. Management & Technical Basics
19. Associate in General Studies
31. Industrial Technology
57. 1. General Studies 2. Arts
69. Porsche PTAP

5. **Designate the AHEM prefixed courses you have completed, as well *as* those you are currently enrolled in:**

Junior	Senior
57	43

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

52	a.	Yes
50	b.	No

7. **How would you characterize your <u>high school</u> coursework focus?**

College Prep	**65**	**59%**
Vocational / Technical	**41**	**37%**
Other (Please specify!)	**4**	**4%**

9. Both college & automotive vocational – most helpful!
42. Didn't care about H.S. - barely graduated!
43. Lifelong learning
73. Had CP academic classes (math, science, etc. and attended voc. tech center
100. A joke!

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

66	a.	Yes
34	b.	No

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

High School Counselor	**17**	**13%**
Ferris Admissions Counselor/Recruiter	**10**	**8%**
High School/Career Center Teacher	**27**	**21%**
Ferris State Alumni	**23**	**18%**
FSU Website	**3**	**2%**
Ferris Faculty Member	**11**	**8%**
Other (Who? Please specify!)	**39**	**30%**

4. High school auto teacher
5. Mail
7. Mom
12. Steve London
15. Mr. Edgerly from Auto Body
18. family members
19. Friend in ASEP program had brother that went through
22. friend at UTI
26. friend
28. Researched for best Automotive Management University
29. CoWorker
32. Macomb C.C.
33. MCC Counselor
36. MCC
40. Auto buff friend of a friend in AZ when I lived there.
43. All my pinhead neighbors
45. Football recruiter
47. Instructor at LBCC
49. Google.com
51. Always knew it was here
54. Current Ferris Student at the time now alumni
56. Football coach
58. Students
63. Dad/uncle/ Alumni
65. Retired faculty member (Kenny Acton)
69. Internet research
71. Family (Ferris Alumni)
79. Uncle was an alumni
82. GRCC professor
83. SMC instructor
85. Universal Technical Institute
86. My parents
88. High School Teacher Mike Terry
89. GRCC Prof's
91. Blake Richter
92. Kent Career Technical Center
94. Friend
96. Dave Folkert (GRCC)
99. Parents

10. Where/How did you originally hear about <u>the AHM Program</u>?

High School Counselor	**5**	**5%**
Ferris Admissions Counselor/Recruiter	**16**	**15%**
High School/Career Center Teacher	**9**	**8%**
	11	**10%**

Ferris State Alumni		
FSU Website	**15**	**14%**
Ferris Faculty Member	**36**	**33%**
Other (Who? Please specify!)	**18**	**16%**

1. Looked into myself
15. Ropele convinced me to stay
19. Friend in ASEP program had brother that went through
28. Researched for best Automotive Management University
29. Coworker
31. Friend
32. Macomb – info desk
40. Auto buff friend of a friend in AZ when lived there.
54. Ferris student
63. My own research
65. Kenny Acton
70. friends
79. uncle
82. GRCC prof.
83. SMC instructor
85. Universal Technical Institute
98. AAS degree instructors at Grand Rapids Community College - Dave Folkert, Randy Lee
100. Father
101. AHM students/ friends

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

Work in the "Wholesale" (OEM) side of the industry	**23**	**19%**
Work in the "Retail" side of the industry	**27**	**23%**
Work in "Fleet Management"	**5**	**4%**
Work in the "Aftermarket"	**9**	**8%**
Work as a "Technical Writer"	**0**	**0%**
Work for a "Government Agency"	**0**	**0%**
Work as a "Trainer" in industry	**0**	**0%**
Work in the "Insurance" side of the industry	**4**	**3%**
Work for a "Supplier"	**3**	**3%**
Work in a "Research & Development / Engineering	**11**	**9%**
Technology" position	**0**	**0%**
"Start my own business!"	**9**	**8%**
Continue on to graduate school – as a full-time student	**8**	**7%**
Other (Please specify!)	**19**	**16%**

4. I have no idea
6. Go into radiology and/or ultra-sound
7. Not sure
11. Consumer affairs
28. Work full time with Heavy Equipment Company and continue on to graduate school part-time.
32. Anything that pays well
38. Undecided
54. Any of the above to start.
63. Work as an assistant/ gen mgr.
65. Keep my options open & see what opportunities come my way and best fit me.
72. Wholesale auction
90. Accounting
91. Fleet, retail, wholesale, graduate school
98. Officer military
100. Not really sure
101. Not corporate! Stop being a corporate pimp

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

Work in the "Wholesale" (OEM) side of the industry	14	**10%**
Work in the "Retail" side of the industry	19	**14%**
Work in "Fleet Management"	4	**3%**
Work as a manager/owner in the "Aftermarket"	9	**7%**
Work as a "Technical Writer"	0	**0%**
Work as a "Government Agency Manager"	2	**1%**
Work as a "Trainer" in industry or in public education	3	**2%**
Work in the "Insurance" side of the industry	1	**1%**
Work in a "Supplier Management" position	2	**1%**
Work in "Research & Development / Engineering Technology"	7 0	**5%** **0%**
"Start my own business!"	45	**33%**
Attend graduate school	16	**12%**
Other (Please specify!)	14	**10%**

12. Factory rep.
28. Work my way up through my current place of employment.
32. Anything that pays well
38. undecided
40. Cont. running my own business
48. Work for Caterpillar in Peoria, IL

51. Work for possibly a supplier and be a CEO someday
61. Work in parts
65. Keep my options open and take the best opportunities that come my way
69. Engineering manager with Toyota
78. Chelsea Proving Grounds
82. Make a lot of money!!
92. Be my own boss
98. Fleet manager, US Army
100. Not sure

13. On a scale of 1 to 5, 5 being the highest, how would you rate the <u>AHM program</u> in terms of:

a. Preparation for a career
b. Intellectual challenge
c. Improvement of your overall communication skills

	2	3	4	5
	1	8	34	55
1		14	42	41
	1	10	30	57

14. On a scale of 1 to 5, 5 being the highest, how would you rate the <u>AHM curriculum</u> in the following areas:

a. The development of management skills
b. The development of verbal communication skills
c. The development of writing skills
d. The development of computer skills
e. The development of teamwork/collaborative skills
f. Faculty academic counseling assistance and availability outside the classroom
g. Faculty teaching expertise within their program area
h. Faculty involvement in providing internship and full-time employment information and career advice

	2	3	4	5
1	5	13	45	39
	3	16	33	52
	2	19	45	35
4	13	25	37	21
3	11	31	36	20
	2	9	36	51
	1	7	41	51
	3	13	35	45

15. On a scale of 1 to 5, 5 being the highest, how would you rate the general education curriculum in the following areas:

a. "English" and "Communication" classes
b. "Cultural Enrichment Electives"
c. "Economics" and "Social Awareness Electives"
d. "Scientific Understanding Electives"

	2	3	4	5
	6	20	46	28
6	14	27	30	13
5	12	27	38	16
3	14	28	35	15

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

---

1. Very nicely laid out program, gives you a proper university work load & pressure. I like the reminders that force you to manage your time. A lot of the things the AHM Program does should get applied to the AET program. (Starting with the books that one reads in the AHM program)
2. Overall the program is good. AHEM 450 has to go as it serves no purpose. Mr. Denny has to improve his teaching skills.
3. Shouldn't have to have so many cultural enrichments. It's hard enough to have to worry about your core classes. Rather than a core class and one you really don't care about.
9. Mr. Ropele, Mr. Denny and Mr. VanderWoude: Thank you for the tremendous amount of information, real-world experience, and help with job placement! Please make sure that you are all using, requiring the same format for your classes. There seems to be some variation/confusion in A.H.M. format and requirements between instructors. Please incorporate more computer help/learning at the beginning of the program.

17. I feel that Mr. Key is a drag on the whole automotive program. He is very unorganized and does not care about students' needs. Mr. Key is very unprofessional for the position he is in. I will not refer anyone to the Ferris Automotive Program until Mr. Key is out of the College of Technology. I will not make any contributions as an Alumni until Mr. Key is removed from the program.
18. 401 was an excellent class, I will use that project forever.

19. Program needs creativity; one can only write so many synopsis critiques, presents, many similar power points, and write so many book reports before they become bored/unchallenged.
20. The internship was the most helpful and best learning experience I've had in 4 yrs @ Ferris.

17. I feel that someone needs to take a serious look the automotive dept. head. There are two other associate professors that I feel care much more about the students and would do a much better job. As an alumni, I will not make any contributions to the university as long as Mr. Key is the dept. head of the automotive program.
18. I don't think we should have taken AHEM 450, didn't think it fits
19. I really like the AHM program; I feel it makes a great impact on students that are willing to strive for success. I have learned more in these two years than any other school in my life when it comes to real world useful knowledge. My only problem is with Professor Denny. He seems like a nice individual but in terms of communication and how much I get out of his classes, he is way below par compared to the other instructors. I feel that his classes really hurt the reputation of this fine program. It seems like as students we try and try to express our discontent and disappointment with his teaching methods but they continue to fall on deaf ears. Why?
20. Great program overall.
21. My younger brother enrolled in Kettering University and he had job offers before he even started his first course. He works at Borg Warner currently. I have four years of college and nearly completed my degree and I can't get an internship. How is this possible?
25. The advisors are the greatest asset to my education at Ferris. All 3 are very knowledgeable, friendly, and willing to help. They are the reason I switched to the program.
27. Great program and pleasure to have taken it.
28. Wonderful program, that has prepared me for my future.
30. I have learned a tremendous amount of valuable information the AHM program. This should be beneficial with any future career moves that I plan to make.
32. Not enough networking for jobs available via Alumni of the program.
37. I have overcome the fear of public speaking. Teachers were very knowledgeable and understanding.
40. I know time is slim for teachers but as a family man I found if word to meet the schedule for classes. Meaning I don't' like the fact of going to class for one class and having to wait to take after noon to take another.
41. The communication skills have helped me the most.
42. I believe that more computer software classes would be better than cultural enrichment.
43. I believe that if there is more than one section of a class offered for the semester, it would benefit students to have one section morning & one section afternoon.

44. Great program, I would and have recommended it to every/any body.
48. Great program.
49. Great atmosphere & good group of people, very interesting
52. We need to remove cultural enrichment and replace with computer classes, such as web design or excel.
53. Mr. Denny????
54. Could have a class that focuses on excel, word, etc. - just a 1 or 2 credit class but make it a requirement.
61. In the program there is way to much "busy work" too many term projects dealing with closely related topics.
63. Work on getting more HEQT students, they don't even know about the program!
64. The interviews and term projects are all very good experience but they all are due in the same week which makes it real hard. These are not the only classes we have.
66. I would like to have a better grasp of where and what we have as possible job choices. Some of them were covered but I would reviewed to have more detail
67. I think the AHM program provides a good preparation for students to go work when they get out of school. The program also helps students improve their communication skills.
69. I think that my biggest problem or concern is that as a student I see the AHM program (ie) Mr. Ropele bend over backwards to help students get jobs & internships. The principle of it is that I have to pay for this 4 hr internship and get zero assistance. I know it is my responsibility to secure an internship and that is why I have an internship with Toyota this summer. But I think it is terrible for the AET faculty to not to help with this.
73. The AHM is well organized and the professors do an excellent job. Too bad I can't say the same about the first 2 years I wasted in the pathetic Auto Body program.
77. To many of the required term projects overlap with each other. It is very hard for those students who have part-time jobs and are involved in clubs or sports to complete their AHEM projects as well as keeping their head above water in their other classes.
82. More aftermarket involvement.
97. I believe that we should eliminate some of the "gen. eds." and have more major specific classes.
98. Good Program!
99. I think there should be more group projects so that the students can work in teams more.
101. Focus less on corporate materials. There is another way. Include small business & aftermarket in course curriculum & internships. More technology in classrooms, not everyone can work in a corporate environment, some of us like to think for ourselves.

Thanks for your assistance.

E. Faculty Perceptions

The three faculty members in the program completed a survey during the month of April 2006. Immediately following this page is a copy of the survey - modified to include the average rating and a summary of faculty comments on each of the 10 questions.

AHM FACULTY SURVEY (2005-6)

(Including summary data and faculty comments.)

Please rate the following on a scale of 1 to 5, 5 being the highest.

1. Student perception of instruction

Score: Comments:

FACULTY AVG. 4.0

Once the workload and expectations sink in (during the first semester), and the fright factor is over, most students recognize and appreciate what the faculty are trying to accomplish.

2. Student satisfaction with the program

Score: Comments:

FACULTY AVG. 4.0

The faculty all agree that the more time goes by, the more the student/graduate appreciates the program, curriculum, emphasis on communication skills, and related assignments.

3. Advisory perception of program

Score: Comments:

FACULTY AVG. 5.0

AHM faculty feel industry support is excellent. Advisory members consistently provide information, advice, they hire interns and graduates, they provide scholarships, training materials, and are always a phone call or e-mail away.

4. Demand for graduates

Score: Comments:

FACULTY AVG. 5.0

AHM faculty members feel there is an on-going strong demand for graduates. Those students with a 3.0 or higher G.P.A. can write their own ticket. The types of jobs will vary from time to time depending on industry new vehicle sales rates. When sales are strong - manufacturers and suppliers hire, when sales are sluggish, they slow down on hiring - but other aspects of industry tend to pick up, such as the aftermarket, fleet management, and vehicle specialty opportunities.

5. Use of professional / industry standards

Score: Comments:

FACULTY AVG. 4.0

Since there is no official sanctioning body related to the AHM program, faculty members seek advice from industry advisory committee members, and faculty from other 4-year automotive schools to establish and maintain standards appropriate for preparing students for industry.

6. Use of student follow-up information

Score: Comments:

FACULTY AVG. 4.33

Multiple instruments are used for continuous improvement. (SAI, Student Surveys, Alumni Surveys, Classroom Class-Critiques, and personal observations)

7. Relevance of support courses

Score: Comments:

FACULTY AVG. 3.33

Student comments on certain general education classes are less than satisfactory. With V.P.A.A. pressure to get B.S. degree programs down to 120 hours (plus internship), two classes will be cut from the AHM program, effective August 2007.

8. Qualifications of Administrators / Dept. Chair

Score: Comments:

FACULTY AVG. 1.67

AHM faculty feel a lack of support from administration at both the department and college level. Lack of consistent College of Technology leadership (10 different people in the Dean's position over the last 13 years) has left the college in free fall. Faculty also feel there is a lack of understanding and commitment by the department chair. All three AHM faculty members, along with the majority of the Automotive Department faculty, voted in favor of a department chair change. Faculty are optimistically waiting for Dean Oldfield to facilitate the change.

9. Instructional staffing (quality and quantity)

Score: Comments:

FACULTY AVG. 4.0

Faculty feel quality is excellent, but are concerned about on-going overloads, both on and off-campus.

10. Facilities / Equipment

Score: Comments:

FACULTY AVG. 5.0

Faculty are pleased with the recent Presidential "Smart Room" Renovation of rooms 105 and 108. The common areas such as the halls, restrooms, computer lab, lobby, and faculty offices are in gross need of attention. The halls and restrooms are basically the same as they were when the building was built back in the 50s. The AHM/AET fuels and lubes lab is slowly being equipped/supported, but still has a ways to go.

AHM alumni funds have been used over the last 5 years to purchase chairs for the department computer lab, chairs for room 105, and a number of pieces of computer related instructional technology devices for both on and off-campus delivery.

F. ADVISORY COMMITTEE PERCEPTIONS

The most recent annual AHM program advisory committee meeting was held on Wednesday March 22, 2006. The following is a list of those who attended from industry:

1. James Chenier, Vice President – Parts Sales and Marketing, Detroit Diesel Corp. (AHM Grad)

2. Richard DuFresne, National Accessory Quality & Field Operation Manager, Toyota Motor Sales

3. Eric Ostrowsky, Operations Manager, W.W. Williams

4. Mike Van Ryn, Director of Talent Development, Harold Zeigler Auto Group

5. Neal Hentschl, Secretary-Manager, Huron County Road Commission (AHM Grad)

6. David Cox, Manager, GM Service & Parts Operations (AHM Grad)

7. Samara Skowronski, Technical Recruiter, TAC Automotive Group

8. Phillip Swaim, Market Representation Specialist, Nissan North America (AHM Grad)

DATA ANALYSIS

Following the annual advisory meeting, all eight members were surveyed. (A copy of the survey instrument immediately follows.) Four (50%) of the surveys were returned.

Those that responded were very pleased with the curriculum and the overall outcomes. They encouraged a continued strong emphasis on writing skills, as they are seeing a decrease in overall writing skills in their respective organizations.

Their responses to the question as to if ASE certification should be required was mixed. Those looking for candidates for the more technical positions tended to want ASE certification; those interested in candidates for more sales and marketing types of positions tended to be less interested in requiring the certification.

Advisory members all noted a need for facility enhancement. They expressed concerns for the program's ability to recruit quality students

when having to operate out of the current facility. No comments where specifically made about equipment.

As far as the quality of graduates is concerned, members ranked the program as doing "competent" to "surpasses expectations".

When asked about areas or aspects of the program that they feel need improvement, two members expressed concerns over the Department Chair's ability to manage and lead the department into the future.

AUTOMOTIVE & HEAVY EQUIPMENT MANAGEMENT (AHM) ADVISORY COMMITTEE SURVEY

Please indicate your level of agreement, using the following scale, with the statements below:

1 - Strongly Disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly Agree
6 - Unknown

CURRICULUM

_____ 1. The curriculum reflects the knowledge and skill sets required for entry-level technical management positions.

_____ 2. The courses are current and relevant.

_____ 3. The curriculum is routinely reviewed and revised.

_____ 4. AHM graduates are well prepared for industry employment.

Comments:

OUTCOMES

_____ 5. The program outcomes are aligned with preparing students for entry-level technical management positions.

_____ 6. The outcomes ensure the comprehensive development of student knowledge, abilities, work ethic, and communication skills.

_____ 7. The program outcomes encourage students to excel.

_____ 8. The program outcomes encourage students to be lifetime learners.

_____ 9. ASE Certification should be required.

Comments:

FACILITIES/EQUIPMENT

_____ 10. The facilities are well organized and utilized.

_____ 11. The equipment is adequate for instructional purposes.

12. The AHM program would greatly benefit from the acquisition of:

_____

GRADUATES

For this section, please use the following scale to evaluate:

1 - Identified Weakness
2 - Developing Competence
3 - Competent
4 - Surpasses Expectations
5 - Unknown/Not Observed

_____ **13. Technical knowledge**

_____ **14. Written communication skills**

_____ **15. Oral communication skills**

_____ **16. Ability to learn new concepts quickly**

_____ **17. Cooperation and relationships with others**

_____ **18. Effective leadership skills**

_____ **19. Ethical business practices**

_____ **20. Appearance and neatness**

_____ **21. Attendance/Punctuality**

_____ **22. Willingness to adjust to supervision**

_____ **23. Multi-tasking skills**

Comments:

24. What are the major strengths of the AHM program?

25. What areas or aspects of the program need improvement?

Thanks for your time.

SECTION 3

PROGRAM PROFILE

Administrative Program Review
Automotive and Heavy Equipment Management (AHM)

(third and fourth-year program)

Purpose of Administrative Program Review

1. to facilitate a process led by the deans and department heads/chairs to assess and evaluate programs under their supervision
2. to facilitate long term planning and recommendations to the VPAA
3. to collect and analyze information that will be useful in the University's accreditation efforts; Academic Program Review deliberation; and assessment.

Instructions: Please prepare a report following the outline below.

I. Program Assessment/Assessment of Student Learning

a) What are the program's learning outcomes?

The AHM program's mission is to prepare/provide entry-level managers for the automotive and heavy equipment industries that have strong technical, business, and communication skills.

b) What assessment measures are used, both direct and indirect?
   a. Short-term Component:
      i. The AHM program faculty utilize tests, written assignments, assignments requiring students to go out and interview professionals in industry, written term projects, video taped oral presentations, and an internship for student assessment throughout the program.
   b. Long-term Component:
      i. Advisory committee meetings/reviews are conducted annually.
      ii. Alumni and employer surveys are used through program review.
      iii. University data is reviewed annually for feedback and planning purposes.

c) What is the assessment cycle for the program?

The assessment cycle is weekly, annually, and every five years.

Since there are only three faculty members that teach in the program and since they all share the same phone line and office, communication is such where assessment is an on-going activity. Additionally, each year's advisory meeting and the program review process every five years exists as it does in most programs on campus.

d) What assessment data was collected in the past?

In addition to observations and discussions of program faculty, student/graduate survey results as well as recommendations from advisory committee members were collected.

e) How has assessment data been used for programmatic or curricular change?

Change is an on-going process! Currently the AHM program is in the process of restructuring the AHEM 450 class; adjusting the overall credits down to 64 – to meet the VPAA mandate; and has an AHM Minor on the drawing board.

II. Course Outcomes Assessment

a) Do all multi-sectioned courses have common outcomes?
Yes

b) If not, how do you plan to address discrepancies?
N/A

c) How do individual course outcomes meet programmatic goals?
Beyond the specific course content, each course is designed to complement the AHM program's mission, as stated above. (I a)

III. Program Features

1. Advisory Board

a) Does the program have a board/committee?

YES

When did it last meet?

March 22, 2005

When were new members last appointed?

Two-three months prior to the meeting by program faculty.

What is the composition of the committee (how many alumni, workplace representatives, academic representatives, etc.)

Alumni – 6; Workplace representatives – 6; Academic representatives - 4

b) If no advisory board exists, please explain by what means faculty receive advice from employers and outside professionals to inform decisions within the program.
N/A

c) Has feedback from the Advisory Board affected programmatic or curricular change? Yes!

2. Internships/Cooperative or Experiential Learning

a) Is an internship required or recommended?

Internships are required and are paid positions.

b) If the internship is only recommended, what percentage of majors elect the internship option?
N/A.

c) What challenges does the program face in regard to internships? What is being done to address these concerns?

No problems at this time.

d) Do you seek feedback from internship supervisors?

Interns are visited by an AHM faculty member/advisor while they are out on internship. Additionally, students send weekly memos to faculty highlighting their weekly activities. Employers get copies of the weekly memos, provide verbal input to the faculty advisor during their visit, and fill out a student evaluation form at the end of the internship.

If so, does that feedback affect pedagogical or curricular change?

Over the years, numerous modifications have been made to curriculum and to the internship requirements.

3. On-Line Courses

a) Please list the web-based courses, both partial internet and fully online, offered last year.

AHEM 302, AHEM 460

Because of the nature of the curriculum, these two course tend to best lend themselves to this type of delivery. Faculty are always looking for new ways to utilize technology to complement curriculum delivery.

4. Accreditation

a) Is the program accredited or certified?

No, this program does not fall under any accrediting body.

5. Student/Faculty Recognition

a) Have students within the program received any special recognition or achievement?

Faculty annually select a student of the year and also nominate one or two individuals to "Whos Who".

b) Have faculty within the program received any special recognition or achievement?

Faculty member Dan VanderWoude completed a sabbatical leave during winter 2005.

6. Student Engagement

a) Is volunteerism and student engagement a structured part of the program? Yes
b) Does the program utilize service learning in the curriculum? Yes
c) Does the program participate in the American Democracy Project? No

The AHM program has an active student organization called the "Automotive & Heavy Equipment Management Student Organization (AHMSO), Their mission statement is as follows: "The purpose of the AHMSO is to support the AHM program, by providing an extra-curricular social and academic atmosphere, to help develop future automotive leaders." This organization is involved with the "Adopt – a-Highway" program and annually participates in the local Big Brothers/Big Sisters" fund raising drive.

Areas of Strength:

Enrollment is up; started three sections Fall 05 vs. two over the last 10 years
Scholarship support is up!
Strong job placement!

Areas of Concern: (and proposed actions to address them)

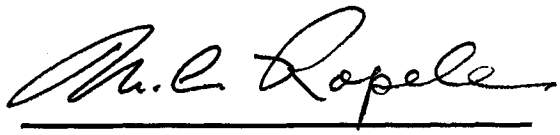
None!

Future Goals:

-Complete a curriculum revision
-Start an AHM Minor
-Consider feasibility of a 0+4 AHM program option

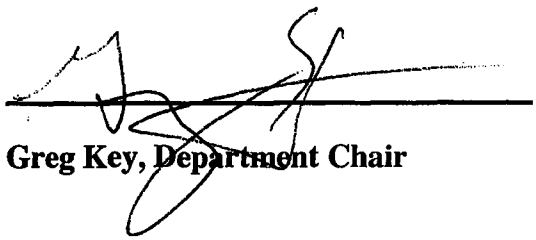
Other Recommendations:

None



11/12/05

Prepared by Michael A. Ropele **Date**



11/12/05

Greg Key, Department Chair **Date**

A. Profile of Students

1. Student Demographic Profile

a. Gender, race/ethnicity, age

Our industry continues to be a very white-male-dominated industry.

There has been six or less females (in total each year) in the program over the last five years.

Term	Total Students Enrolled	Male Student Count	Male Student %	Female Student Count	Female Student %
Fall 2001	97	94	96.9%	3	3.1%
Fall 2002	101	97	96.0%	4	4.0%
Fall 2003	93	87	93.5%	6	6.5%
Fall 2004	94	88	93.6%	6	6.4%
Fall 2005	102	99	97.1%	3	2.9%

Looking at student gender ratios since the last program review, the students in the AHM program have averaged 95.4% male, and 4.6% female. *(Data provided by Institutional Research and Testing 11/8/2005)*

The chart below illustrates the student body profile as it relates to ethnicity / race since the last program review: *(Data provided by Institutional Research and Testing 11/8/2005)*

Term	Total Student Count	African American	Hispanic	Indian / Alaskan	Asian / Pacific Islander	White	Foreign	No Response
Fall 2001	**97**	**6** (6.2%)	**3** (3.1%)	**0** (0.0%)	**3** (3.1%)	**78** (80.4%)	**3** (3.1%)	**4** (4.1%)
Fall 2002	**101**	**4** (4.0%)	**3** (3.0%)	**1** (1.0%)	**3** (3.0%)	**82** (81.2%)	**2** (2.0%)	**6** (5.9%)
Fall 2003	**93**	**3** (3.2%)	**2** (2.2%)	**2** (2.2%)	**3** (3.2%)	**76** (81.7%)	**1** (1.1%)	**6** (6.5%)
Fall 2004	**94**	**2** (2.1%)	**0** (0.0%)	**2** (2.1%)	**2** (2.1%)	**80** (85.1%)	**2** (2.1%)	**6** (6.4%)
Fall 2005	**102**	**2** (2.0%)	**2** (2.0%)	**0** (0.0%)	**0** (0.0%)	**90** (88.2%)	**3** (2.9%)	**5** (4.9%)

The average age of the AHM student is illustrated in the following table:

Term	Average Age
Fall 2001	**23.1 yrs.**
Fall 2002	**22.8 yrs.**
Fall 2003	**23.6 yrs.**
Fall 2004	**24.4 yrs.**
Fall 2005	**23.6 yrs.**

Looking at student age data since the last program review, the students in the AHM program have averaged 23.5 years of age.

(Data provided by Institutional Research and Testing 11/8/2005)

b. <u>In-state/out-state</u>

The most recent student survey data shows where 19% of our students (3rd and 4th year) during the 2005-06 academic year were from out of state. The same data also shows where 59 % of the AHM students received their associate degree from Ferris. (41% transfer students)

The following table illustrates residency status of students enrolled in the AHM program: *(Data provided by Institutional Research and Testing 11/8/2005)*

Term	Resident	Non-Resident	Midwest Compact
Fall 2001	**78** (91.7%)	**7** (5.1%)	**12** (3.2%)
Fall 2002	**84** (91.7%)	**6** (1.9%)	**11** (6.4%)
Fall 2003	**79** (88.5%)	**5** (1.4%)	**8** (10.1%)
Fall 2004	**84** (87.3%)	**4** (0.9%)	**6** (11.8%)
Fall 2005	**88** (83.2%)	**9** (3.6%)	**5** (13.2%)

c. Full time/part time

AHM main campus offerings are for the full-time student. Since the fall of 1996, the AHM program has been offered at the University Center at Macomb Community College in Utica, Michigan, as well. Students at this location are part-time students who typically take one course in the AHM major each semester and one or two of the general education or general business courses, as their schedules permit. The AHM courses are typically offered on Thursday evenings.

Term	Total Students (On-Campus Full-time)	Total Pre AHM Students	Total Students (Off-Campus Part-time)
Fall **2001**	85	0	12
Fall **2002**	92	4	11
Fall **2003**	80	6	15
Fall **2004**	76	6	20
Fall **2005**	87	6	15

AHM Course Offerings at Macomb – Fall 1996 to Present

(Off Campus – Part Time)

Semester	Course #	Faculty	# of Students
96F	301	Ropele	18
97W	302	Brownell	22
97S	450	Gahrs	17
97F	303	Denny	21
98W	401	Ropele	24
98S	404	VanderWoude	20
98F	402	Denny	13
98F	301	Ropele	10
99W	(Brought BLAW 301 (16) & ENGL 311 (18) to Macomb)		
99S	450	VanderWoude	14
99F	302	Denny	13
00W	303	Denny	9
00S	No "AHEM" Class this semester.		
00F	401	VanderWoude	9
01W	402	Denny	10
01W	301	Ropele	19
01S	404	Ropele	11
O1F	450	Denny	12
02W	302	VanderWoude	9
02S	303	Ropele	10
O2F	401	VanderWoude	11
03W	402	Denny	11
03S	360	Ropele	17
03F	460	VanderWoude	15
04W	301	Ropele	19
04S	450	Denny	16
04F	404	Ropele	20
05W	303	Denny	12
05S	302	VanderWoude	13
05F	401	VanderWoude	15
06W	402	Denny	12
06S	360	Ropele	18

AVG. AHM CLASS SIZE - 14.666 STUDENTS (AFTER 10 YEARS, 30 CLASSES) - Source: F.S.U. - S.I.S.

d. Attended class during the day, in the evenings, and on weekends.

The AHM program offers courses in the evenings at Macomb Community College to cater to working adults in the greater Detroit area who have an associate degree are working and want to obtain a B.S. degree while maintaining a job and family obligations. Classes are typically offered one time per week, normally on Thursday evenings. Courses in major are taught by AHM faculty who take turns driving down to teach the courses. General education and general business courses can be taken at Macomb or any other educational institution provided the courses are equivalent to those required by Ferris.

The majority of the on-campus courses are offered during the normal daytime (8-5) hours. On occasion, if faculty are in an overload situation, classes are scheduled in the evenings for the full-time student, as well.

e. Enrolled in classes on and off-campus.

See prior.

f. Enrolled in 100% on line and/or mixed delivery courses.

The AHM program offers all courses on ground, with the exception of AHEM 302 and AHEM 460 when taught at the Macomb Community College location. These two course are offered in a combined on-ground/on-line fashion.

g. Discuss how the information presented in (a) through (f) impacts the curriculum, scheduling, and/or delivery methods of the program.

As noted prior, creative scheduling is required from time to time to allow faculty the time to travel to the Macomb site for a Thursday evening 6 pm to 10 pm class.

2. **Quality of Students**

a. **What is the range and average GPA of all students currently enrolled in the program? ACT? Comment on this data.**

The following table illustrates the range and averages of GPAs and ACTs of students enrolled in the AHM program since the last program review. *(Data provided by Institutional Research and Testing 11/8/2005)*

Term	Average GPA	Minimum GPA	Maximum GPA	Average ACT	Minimum ACT	Maximum ACT
Fall 2001	2.86	1.374	3.959	19.1	14	27
Fall 2002	2.819	1.429	3.776	19.3	13	27
Fall 2003	2.882	.7	4	19.2	13	27
Fall 2004	2.834	1.813	3.895	18.8	13	28
Fall 2005	2.884	1.906	4	19.7	13	29
Average of Last 5 Years	2.8558	1.4444	3.926	19.22	13.2	27.6

Average GPA data has been consistently in the 2.8 area over the last five years. Average ACT scores for the five year period is 19.22.

b. <u>What is the range and average GPA of all students graduating from the program? ACT? Comment on this data.</u>

The following table illustrates the range and averages of GPAs and ACTs of students <u>graduating from</u> the AHM program since the last program review. *(Data provided by Institutional Research and Testing 11/8/2005)*

Term	Average GPA	Minimum GPA	Maximum GPA	Average ACT	Minimum ACT	Maximum ACT
Fall 2001	3.061	2.406	3.953	16.7	11	25
Fall 2002	2.965	2.103	3.845	17.3	11	26
Fall 2003	3.088	2.205	3.945	18.4	9	30
Fall 2004	3.058	2.005	3.867	17.9	11	26
Fall 2005	3.156	2.303	4	19	14	23
Average of Last 5 Years	3.0656	2.2044	3.922	17.86	11.2	26

Average GPA data has been consistently in the 3.0 area over the last five years. Average ACT scores have gradually increased over the five year period with 19 for fall 2005 and the current five year average of 17.86.

c. In addition to ACT and GPA, identify and evaluate measures that are used to assess the quality of students entering the program.

Up until just recently students had to have a 2.0 GPA or higher in their associates degree to be admitted into the AHM program. Beginning in the fall of 2007, students with an associate degree who apply to the program will need a 2.3 GPA or higher. Students in the new 0+4 AHM program option, will need to have a "C" or higher in each of their first two year technical courses, before they can move on into the Automotive Management core courses as a junior.

d. Identify academic awards (e.g. scholarships or fellowships) students in the program have earned. Comment on the significance of these awards to the program and students.

Each year the AHM program and Department have a number of scholarships that are available to students. The following pages are a sample of what was available this past year.

Automotive + Heavy Equipment Management

APRC 2006-2007

section 3 of 3

2005-2006 AUTOMOTIVE DEPARTMENT STUDENT SCHOLARSHIPS

AUTOMOTIVE AFTERMARKET INDUSTRY ASSOCIATION (AAIA)

This $1,500 annual scholarship is available to all full-time AHM students with a minimum cumulative GPA of 3.00.

Applicant must be of good moral character, industrious, and must declare
in writing a desire to pursue a career in the automotive service industry.

The applicant's academic records and qualifications must indicate an ability to cope with industry management demands.

Academic performance, student involvement, and financial need is considered in the selection process.

AUTOMOTIVE WOMEN'S ALLIANCE EDUCATION SCHOLARSHIP

This $2,500 annual scholarship is available to a woman going into the automotive industry.

Applicant must be a North American citizen with a minimum cumulative GPA of 3.00.

Applicant must be accepted or enrolled in a university or college.

Please see the following site for details:
www.automotivewomensalliance.com/Contributions/ScholarshipList.aspx

CUMMINS ENGINE COMPANY

This $ 1,000 annual scholarship is available to all full-time AHM students with a minimum cumulative GPA of 3.00.

Applicant must be a full-time student with at least one semester remaining.

Applicant must exhibit skills and abilities required to succeed in the Automotive or Heavy Equipment industry – specifically written and oral communication skills.

Preference shall be given to students who demonstrate a high level of self-motivation, involvement in extracurricular activities, leadership, and professionalism.

Financial need is an important criterion.

Award will be applied directly to cost of full-time tuition.

FINISHMASTER AUTOMOTIVE PAINT STORES

This $500 annual scholarship is available to sophomore Auto Body students (30+ semester hours) or junior AHM students (60+ semester hours) who have demonstrated an interest in employment in the auto body repair or supply business.

Applicant must be a full-time student to apply.

Applicant must have a minimum cumulative GPA of 3.00.

In addition to academic performance, the applicant must demonstrate those qualities necessary to make a significant contribution to the industry.

The Auto Body / AHM faculty selects the top candidates, with FINISHMASTER Automotive Paint Stores making the final decision.

FORD MOTOR COMPANY

Eight $2,000 scholarships are available this year.

Four of these scholarships are dedicated to minorities and females.

Applicant must have attained junior-level status in an automotive program (60+ semester hours and in core-course sequence) to be eligible.

Applicant must be a full-time student.

Applicant must be U.S. citizen or legally permitted to work in United States.

Applicant must demonstrate those qualities necessary to make a significant contribution to the industry.

Applicant must have a minimum cumulative GPA of 3.00.

Academic performance and student involvement are considered in the selection process.

Minorities, females, handicapped, veterans and multi-lingual students are encouraged to apply.

General Motors Service Operations Automotive Technology Scholarship

Two $2000 scholarships are available each year.

Applicants must have attained a minimum of sophomore status and be enrolled full-time in any automotive department program.

Applicant must have a minimum cumulative GPA of 3.25.

Applicant must be a U.S. citizen.

Applicant should demonstrate enthusiasm, a positive attitude, strong leadership skills, the ability to work with a diverse population, and a passion for the automobile business.

Preference will be given to applicants that have taken and passed at least one ASE exam, worked at a GM dealership, or participated in a FSU/GM Externship.

Applicant must fill out a GM scholarship application.

MARK WALDORFF MEMORIAL SCHOLARSHIP MICHIGAN ADJUSTERS ASSOCIATION

This $500 annual scholarship is available to junior AHM students (60+ semester hours).

Applicant must demonstrate an interest in employment in the automotive insurance adjusting industry.

Applicant must demonstrate those qualities necessary to make a significant contribution to the collision industry.

Applicant must be a full-time student to apply.

TAC AUTOMOTIVE GROUP

This $1,000 annual scholarship is available to all full-time AHM students.

Applicant must have attained junior-level status in the AHM program (60+ semester hours and in core-course sequence) to be eligible.

Applicant must be a full-time student.

Applicant must be a U.S. citizen or legally permitted to work in United States.

Applicant must demonstrate those qualities necessary to make a significant contribution to the industry.

Applicant must have a minimum cumulative GPA of 3.00.

Academic performance, student involvement, and financial need is considered in the selection process.

Applicant must fill out a TAC Automotive scholarship application.

TOYOTA SCHOLARS PROGRAM

Two $2,000 scholarships are available each year for junior AHM students (minimum of 60 semester hours and in core-course sequence).

Applicant must be a full-time student.

Applicant must be a U.S. citizen or permanent resident of the United States.

In addition to academic performance, applicants must demonstrate those qualities necessary to make a significant contribution to the industry.

Applicant must have a minimum cumulative AAS degree GPA of 3.30.

SHERMAN THROOP TOYOTA SCHOLARSHIP

There is one $2,000 scholarship available each year for junior AHM students (minimum of 60 semester hours and in core-course sequence).

Applicant must be a full-time student.

Applicant must be a U.S. citizen or permanent resident of the United States.

The applicant must describe their "PASSION FOR LIFE" as described in the attached "Sherman Throop Toyota Scholarship" flyer.

Grade point is **NOT** a factor in awarding this scholarship.

GARY TRIMARCO AUTOMOTIVE SCHOLARSHIP

Two $1,500 scholarships are available each year for ALL AUTOMOTIVE Department Students.

The candidate must be accepted into an Automotive Department program (AAS or BS) and be a full time student.

Preference is given to applicants from Osceola, Mecosta, or Montcalm counties.

Financial need shall be a determining criteria.

Applicant must fill out a Trimarco Automotive scholarship application.

A faculty committee from the Automotive Department will review applicants and forward a pool of qualified candidates to Gary and Lynn Trimarco for a final decision.

b. **What is the average starting salary of graduates who become employed full-time in the field since inception (for new programs) or the last program review? Compare with regional and national trends.**

Based on the information contained in the 2003-4 "Graduate Follow-Up Survey Report" the average starting salary for graduates of the AHM program was approximately $34,710.00 annually.

Alumni survey data obtained from surveys for this review indicates an average starting wage for graduates between 2000 and 2005 to be $38,019. Over 70% of the AHM alumni surveyed are now earning over $50,000 per year. (Section 2)

c. **How many graduates have become employed as part-time or temporary workers in the field within one year of receiving their degree? Comment on this data.**

Data on the employment rates of graduates in part-time or temporary positions is unavailable at this time. Students typically are employed as full-time employees or continue their education.

d. **Describe the career assistance available to the students. What is student perception of career assistance?**

Students have access to the office of Student Employment and Career Services, on campus, where they can seek help in creating and posting a resume, search for prospective employers, view job fair schedules, participate in mock interviews, etc. The program faculty is also an excellent source of information on job opportunities and career related information. Over 30 AHM employers conduct on-campus interviews each year.

e. **How many graduates continue to be employed in the field? Comment on this data.**

Recent alumni survey data showed where all respondents continued to be employed in industry.

f. Describe and comment on the geographical distribution of employed graduates.

Hard data is not available to answer this question. Because of the nature of the industry and the high percentage of graduates that go to work for manufacturers, relocation is quite common. It is not unusual for corporate employees to relocate every 18 months to two years.

g. How many students and/or graduates go on for additional educational training? (Give annual average.) Comment on this data.

In the recent Alumni survey when asked about the types of training received since graduation, the most significant number was additional technical training (72.2%). As many graduates find employment with vehicle manufacturers, it stands to reason that product specific training would be mandated by their employer. Close seconds to technical training were the three categories of management (54.4%), computer software (51.1%), and personal development (47.8%). Only 12.2% of the alumni indicated that graduate study was taken. Program faculty regularly encourage post-graduate study as competition for career advancement in the industry increases. Perhaps this statistic will change at the next program review as future alumni recognize its importance for their future.

h. Where do most students and/or graduates obtain their additional educational training? Comment on this data.

The majority of the additional training is done internally within the corporate environment. At times training is obtained through aftermarket channels, conferences/expos, and through trade organizations. This will depend on the graduate's employer and affiliations they may have.

B. Enrollment

1. **What is the anticipated fall enrollment for the program?**

Based on current figures and past experience, the projected enrollment for Fall 2006 is between 80 and 90 students on campus, and 15 students off campus. This is estimating the number of new students entering the program to be 50 students.

2. **Have enrollment and student credit hour production (SCH) increased or decreased since the last program review? Supply a table and comment on any enrollment trends.**

The following table reflects student enrollment and student credit hours (SCH/FTEF) since the last program review: *(Enrollment data provided by Ferris Fact Book / SCH data provided by Institutional Research and Testing – Productivity Report Fall 2000 – Winter 2005.)*

Year	COT	Auto. Dept.	AHM	Enrollment	Prees
00-01	343.83	N/A	405.05	81	N/A
01-02	330.62	307.03	418.33	85	0
02-03	342.87	330.51	487.08	92	4
03-04	360.57	372.38	496.05	80	6
04-05	356.20	348.37	501.33	76	6
05-06	N/A	N/A	N/A	87	6

Between Fall 2001 and Fall 2005, the AHM program on-campus enrollment stayed fairly consistent. Student credit hours per full time equated faculty increased from 418.33 in 01-02 up to 501.33 in 04-05. This is largely due to the additional students AHM has gained from students in the Automotive Engineering Technology program that are taking the Management Option, which includes four AHM courses.

3. **Since the last program review, how many students apply to the program annually?**

No complete and usable information was available from FSU to answer this question with specific data.

Since the admission requirements to enter the program include having a technical automotive or heavy equipment related associate degree or equivalent and a minimum total GPA of 2.0, most students that apply are accepted. If a student applies and is deficient in a Math or English class, and/or has not taken the ACT, they are either accepted as pres or are

encouraged to complete the needed coursework from a local community college and then reapply. Consequentially, our actual enrollment numbers and applications numbers are very similar.

In the fall of 2007, the AHM entry-level GPA will be raised to a minimum of 2.3.

4. **Of those who apply, how many and what percentage are admitted?**

No complete and usable information was available from FSU to answer this question with specific data.

5. **Of those who are admitted, how many and what percentage enroll?**

No complete and usable information was available from FSU to answer this question with specific data.

6. **What are the program's current goals, strategies, and efforts to maintain/increase/decrease the number of students in the program? Please explain.**

The goal of the AHM program is to increase the number of students enrolled in the program. The following is a listing of some of the activities planned.

1. AHM faculty will continue to participate in career fairs at area vocational centers and high schools across Michigan and surrounding states. The purpose is to expose students to opportunities that Ferris State University and the AHM program has to offer.

2. AHM faculty will continue marketing the program internally to students in the on-campus associate degree feeder programs.

3. AHM faculty will update/maintain a high quality and user friendly program website featuring alumni success stories.

4. AHM faculty will continue to provide world class service in interacting with prospects and advising students.

5. The AHM program will offer a new 0+4 program option to better cater to minorities and females, who traditionally have not been interested in being labeled a mechanic/ technician and don't want to buy tools and jump through the associate degree hoop first.

6. The AHM program now offers a minor for College of Business students and other majors interested in a career in Automotive Management.

C. Program Capacity

1. **What is the appropriate program enrollment capacity, given the available faculty, physical resources, funding, accreditation requirements, state and federal regulations, and other factors? Which of these items limits program enrollment capacity? Please explain any difference between capacity and current enrollment.**

The program capacity is based on a junior year starting group of 40 students, and offering one off-campus class at Macomb Community College each semester.

The faculty is willing to take turns driving down to Macomb, and they are willing to teach overloads as needed. Most of the AHM courses have a 20 student cap, but the faculty team has always been willing to allow extra students in, rather than turn them away.

The challenge in the future will be covering Dan Vander Woude's teaching load if/when he takes over as the next Department Chair.

D. Retention and Graduation

1. **Give the annual attrition rate (number and percent of students) in the program.**

No complete and usable information was available from FSU to answer this question with specific data.
(See the following page provided from Institutional Research & Testing.)

2. **What are the programs current goals, strategy and efforts to retain students in the program?**

The AHM program faculty team takes it upon themselves to provide world-class advising. If a student is having difficulties in a class or in their personal life, the faculty member involved will meet one-on-one with the student to determine the root cause and help formulate a plan for improvement. In most cases, through quality advising, students will successfully complete the program.

3. **Describe and assess trends in numbers of degrees awarded in the program.**

The number of degrees awarded has remained fairly consistent. Below find a table with statistics that were available.

Degrees Conferred

	2001-02	2002-03	2003-04	2004-05
AHM	32	34	33	36

4/5. **How many students who enroll in the program graduate from it within the prescribed time? Comment on any trend.**

On average, how long does it take to graduate from the program? Please comment.

Ferris State University

Retention and Graduation Rates of Full-Time FTIAC Students - By Major

Four-Year Degree Programs

Fall Term

Entering Fall Term	Major	N		Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
2001F	AHM	1							
			% Graduated By	0	0	100	100		
			% Still Enrolled In	100	100	0	0		
			% Persisters	100	100	100	100		
			% Non-Persisters	0	0	0	0		
2003F	AHM	1							
			% Graduated By	0	0				
			% Still Enrolled In	100	0				
			% Persisters	100	0				
			% Non-Persisters	0	100				

This is hard to determine. Students with Ferris associate degrees that start the program with their associate degree in hand, largely finish in four years (2+2). Transfer students are a different story. Some transfer in with some of the AHM general education and general business class credits – and get done sooner. Others, that transferred in from an associate degree program that lacked one or two general education classes, may need an extra semester.

Students in the off-campus Macomb program typically will take between 3 and 5 years to complete the equivalent of the 3rd and 4th years of the on-campus program.

E. Access

1. **Describe and assess the program's actions to make itself accessible to students. Use examples such as off-site courses or other types of flexible learning, use of summer courses, multiple program entry points, e-learning, mixed delivery courses, scheduling.**

   The AHM program has been creative and flexible in catering to all potential markets.

   For 10 years the AHM program has been offered at the University Center at Macomb Community College for working adults who have an associate degree, and want or need a B.S. degree. As a result of the program's presents at Macomb – some Macomb students have transferred to main campus to finish quicker. Some fulltime students needing only a class or two have gone the other way and used Macomb as a way to complete their degree while they are doing a last-semester internship.

   On-campus classes are offered evenings on occasion – once or twice per week, to cater to working adults locally, who want the degree, but still need to work to support their families.

   The AHM program offers three courses in major on campus each summer, for those students interested in getting done as soon as possible, in addition to the one class at Macomb.

2. **Discuss what effects the actions described in (1) have had on the program. Use examples such as program visibility, market share, enrollment, faculty load, computer and other resources.**

   The convenience factor is appealing to students and yields increased enrollment. It also provides summer load for program faculty.

3. **How do the actions described in (1) advance or hinder program goals and priorities?**

   The actions described in (1) above improve program visibility, help increase enrollment, give current students other options in planning their time in the program, and have created a bond with Macomb Community College and their two year automotive program.

F. Curriculum

The curriculum review section must also contain appropriate check sheets and sample syllabi, which may be attached as an appendix.

1. **Program Requirements. Describe and assess the program related courses required for graduation.**

   a. **As part of the graduation requirements of the current program, list directed electives and directed general education courses. Provide the rationale for these selections.**

   Automotive and Heavy Equipment Management students are not required to take any directed electives, at the current time. Automotive and Heavy Equipment Management students must complete the following directed general education courses:

   - Economics 221 (Fulfills university requirement for social awareness) Provides students with an overview of economics necessary to be successful in the global automotive industry.
   - English 311 (Fulfills university requirement for communication competence) Provides students with technical writing skills critical to be successful in the global automotive industry.
   - Communications 121 (Fulfills university requirement for communication competence) Provides students with public speaking skills critical to be successful in the global automotive industry.

   b. **Indicate any hidden prerequisites (instances where, in order to take a program-required course, the student has to take an additional course. Do not include extra courses taken for remedial purposes)**

   There are no hidden prerequisites in the Automotive and Heavy Equipment Management program.

2. **Has the program been significantly revised since the last review, and if so, how?**

The Automotive and Heavy Equipment Management program went through a minor program revision in 2001, which included the following changes:

- Added two new courses:
  - AHEM 360 - Automotive Culture
  - AHEM 460 - Internet Marketing
- Dropped two courses:
  - MKTG 221 - Professional Selling
  - AHM directed elective
- Added one hour to AHEM 402 - Management of Variable Operations (from three credit hours to four, to make room for one-on-one sales training exercise, lost when MKTG 221 was dropped).

3. **Are there any curricular or program changes currently in the review process? If so, what are they?**

The AHM faculty have drastically changed the current AHM program, and all changes have been approved, but do not go into affect till the fall 2007 semester. These changes include:

- Drop two classes to accommodate the reduction in credit hours encouraged by the university:
  - MGMT 301 - Principles of Management
  - MKTG 321 - Principles of Marketing
- Renamed the program **AUTOMOTIVE MANAGEMENT**, to reduce confusion between the many programs, at Ferris State University, that start with automotive or heavy equipment. Course prefixes were also changed, from AHEM to AMGT, to further reflect the name change.
- Introduced a College of Business minor, using current AHEM classes (with the new course prefix - AMGT), to accommodate those business students wanting to go into the automotive industry.
- Introduced a new "0 + 4" program, with the same name (Automotive Management) for those students wanting to go into the automotive industry, but do not want to spend a lot of time in the hands-on portion of the technical curriculum, nor spend a lot of money buying tools, mainly for classes, that they will not use

when they go to work, as technical managers. The following changes were approved:

- Drop two classes to accommodate the reduction in credit hours encouraged by the university:
  - MGMT 301 - Principles of Management
  - MKTG 321 - Principles of Marketing
- Drop two hands-on service floor classes, in the first two years, so program will be open to a more diverse population, and students can reduce their tooling costs.
- Introduce four course sequence of specialized electives, to be determined by student and adviser, allowing greater flexibility in a student's educational goals.
- Reconfigure AHEM 450 - Automotive Materials to a four credit hour lecture only class. It was changed to a 3+2 lecture lab to accommodate Automotive Engineering Technology students, in 2001. The AET faculty are currently modifying their version of this course, so the AHM faculty are putting it back to its original form. At the same time this course is being renumbered , from 450 to 300, to reflect its junior level status.
- Rename Dealership Accounting to Automotive Accounting, to more accurately reflect its course content.

4. **Are there plans to revise the current program within the next three to five years? If so, what plans are envisioned and why?**

   Based on this program being recently modified, with a start-up date of fall 2007, no major modifications are currently in the works.

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE MANAGEMENT
BACHELOR OF SCIENCE DEGREE
2 + 2 Option
Curriculum Guide Sheet

BS Degree Minimum General Education Requirements

(See the General Education webpage at www.ferris.edu/HTMLS/academics/gened/gened.html for details and acceptable courses in each program)

Communications Competence: 12 semester hours

Quantitative Skills: MATH 115 or ACT score

Scientific Understanding: 7/8 semester hours, including at least one lab course.

Cultural Enrichment: 9 semester hours, including at least one course 200 level or higher.

Social Awareness: 9 semester hours, including at least one Foundation course and at least one 200 level or higher.

At least one Global Consciousness (G) course and one Race/Ethnicity/Gender (REG) course (within Cultural Enrichment or Social Awareness).

Meeting all requirements for graduation is the student's responsibility. Your advisor is available to assist you.

Total semester hours needed for graduation: 64 in addition to AAS degree.

			CREDIT/GRADE
THIRD YEAR-FALL SEMESTER			
AMGT	300	Automotive Materials	4
AMGT	301	Automotive Marketing & Distribution I	4
COMM	121	Fundamentals of Public Speaking	3
ENGL	311	Advanced Technical Writing (ENGL 211 or 250)	3
THIRD YEAR-WINTER SEMESTER			
AMGT	302	Automotive Marketing & Distribution II (AHEM 301)	4
AMGT	303	Automotive Accounting (AHEM 301)	4
ECON	221	Principles of Economics 1 (C- in MATH 110)	3
*MATH	115	Intermediate Algebra	3
FOURTH YEAR-FALL SEMESTER			
AMGT	360	Automotive Culture	3
AMGT	401	Management of Fixed Operations (AHEM 303)	4
BLAW	301	Legal Environment of Business	3
ELECTIVE		Cultural Enrichment Elective (200 level or higher)	3
ELECTIVE		Social Awareness Elective	3
FOURTH YEAR-WINTER SEMESTER			
AMGT	402	Management of Variable Operations (AHEM 303)	4
AMGT	404	Warranty and Customer Relations (Senior Status)	3
AMGT	460	Automotive Internet Marketing (Senior Status)	3
ELECTIVE		Cultural Enrichment Elective	3
ELECTIVE		Scientific Understanding Elective	3
INTERNSHIP (MAY BE TAKEN ANY TIME AFTER THIRD YEAR)			
AMGT	493	Internship (Senior Status)	4

*Obligation may also be fulfilled by taking MATH 117-Contemporary Mathematics
*Coursework not required for students with a math ACT score of 24 or higher.

Revised: 1/06
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FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE MANAGEMENT
BACHELOR OF SCIENCE DEGREE
0 + 4 Option
Curriculum Guide Sheet

BS Degree Minimum General Education Requirements

(See the General Education webpage at www.ferris.edu/HTMLS/academics/gened/gened.html for details and acceptable courses in each program)

Communications Competence: 12 semester hours

Quantitative Skills: MATH 115 or ACT score

Scientific Understanding: 7/8 semester hours, including at least one lab course.

Cultural Enrichment: 9 semester hours, including at least one course 200 level or higher.

Social Awareness: 9 semester hours, including at least one Foundation course and at least one 200 level or higher.

At least one Global Consciousness (G) course and one Race/Ethnicity/Gender (REG) course (within Cultural Enrichment or Social Awareness).

Meeting all requirements for graduation is the student's responsibility. Your advisor is available to assist you.

Total semester hours needed for graduation: 128

			CREDIT/GRADE
FIRST YEAR-FALL SEMESTER			
AUTO	111	Manual Transmission & Drivelines	4 _____
AUTO	112	Automotive Brake Systems	4 _____
AUTO	113	Automotive Electricity & Electronics	4 _____
PHYS	130	Concepts in Physics	4 _____
FIRST YEAR-WINTER SEMESTER			
AUTO	114	Automotive Engines	4 _____
AUTO	115	Suspension, Steering, Alignment Services	4 _____
AUTO	117	Electronic Fuel Management Systems	4 _____
ENGL	150	English 1	3 _____
SECOND YEAR-FALL SEMESTER			
AUTO	211	Automotive Automatic Transmissions	4 _____
AUTO	213	Chassis Electrical/Electronics (AUTO 113)	4 _____
AMGT	301	Automotive Marketing & Distribution I	4 _____
ENGL	250	English 2 (ENGL 150)	3 _____
SECOND YEAR-WINTER SEMESTER			
AUTO	214	Automotive HVAC	4 _____
MATH	115	Intermediate Algebra *	3 _____
ELECTIVE		Cultural Enrichment	3 _____
ELECTIVE		Social Awareness	3 _____

*Obligation may also be fulfilled by taking MATH 117-Contemporary Mathematics
*Coursework not required for students with a math ACT score of 24 or higher.
NOTE: A student must obtain a grade of "C" or better in all "AUTO" prefix courses prior to beginning their junior year.

It is highly recommended that you take the ASE tests prior to graduating from your baccalaureate degree program and while the information is still fresh in your mind. Taking and passing ASE tests leads to certification and reflects achievements, grants professional credentials, and provides for greater potential earnings. Most employers require ASE certification as a condition of employment.

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FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

AUTOMOTIVE MANAGEMENT MINOR
Curriculum Guide Sheet
Total semester hours: Minimum 18

Name:_____ **Student ID:**_____

Admittance Requirements:

This minor degree is open to all students enrolled at Ferris State University pursuing baccalaureate or higher degrees in majors other than Automotive Management. Students are expected to meet prerequisites for all courses.

Students are required to meet with their Automotive Management faculty advisor to plan and track their progress throughout the minor degree.

Degree Requirements:

Minimum of 18 semester hours; GPA of 2.0 or higher in each minor degree course.

Required Courses:

AMGT	301	Automotive Marketing & Distribution I (F)	4 (4+0)
AMGT	302	Automotive Marketing & Distribution II (W)	4 (4+0)
AMGT	303	Automotive Accounting (W) **OR**	4 (3+2)
ACCT	201	Principles of Accounting 1 (F,W,S)	3 (3+0)
AMGT	404	Warranty and Customer Relations (W,S)	3 (3+0)

Directed Electives: Fulfill balance of credits from the following courses.

AMGT	300	Automotive Materials (F)	4 (4+0)
AMGT	360	Automotive Culture (F)	3 (3+0)
AMGT	402	Management of Variable Operations (W,S)	4 (4+0)
AMGT	460	Automotive Internet Marketing (W,S)	3 (2+2)

"( )" designates semester offered.

G. QUALITY OF INSTRUCTION

1. **Discuss student and alumni perceptions of the quality of instruction.**

   Based upon feedback gathered from alumni surveys, the perception of instruction is predominately favorable. More than 90 % of respondents agreed or strongly agreed that their AHM degree helped them achieve their career goals. More than 80 % of respondents agreed or strongly agreed that they were satisfied with the program advising they received.

   (Data provided by Ferris State University / Automotive and Heavy Equipment Management Survey of Graduates – 2006)

2. **Discuss advisory committee and employer perceptions of the quality of instruction.**

   Advisory committee and employer surveys did not include a section for employer feedback on instructional staff. Most employers have very little first hand knowledge of quality of instruction in the Automotive and Heavy Equipment Management program. However, employers gave generally positive feedback regarding student performance and preparedness, with the vast majority of survey respondents reporting they would hire another Ferris State University graduate. These positive employer assessments of Automotive and Heavy Equipment Management students can be directly related to instructional staff quality.

3. **What departmental and individual efforts have been made to improve the learning environment, add appropriate technology, and train and increase the number of undergraduate / graduate assistants, etc?**

   Several forms of instructional technology are used by Automotive and Heavy Equipment Management faculty.

   - WebCT is used by faculty members for a number of student assignments, including: testing, grading, and effective communication.

   - The Automotive and Heavy Equipment Management faculty use LCD (Liquid Crystal Display) in every classroom for more efficient instruction. They are essential for using instructional technologies such as Power-Point, Web-Based instruction, and computer generated instructional media.

- Automotive and Heavy Equipment Management faculty members use laptop computers to create lessons, present materials, and communicate with students; making the classroom a more efficient learning environment.

- The Automotive Center uses wireless internet technology throughout the building. The combination of wireless capability and laptop computers gives faculty members a great deal of flexibility in their lesson planning and delivery.

- In fall 2005, two of the Automotive Center's classrooms were remodeled and updated to make use of Smart Classroom Technologies. These upgraded classrooms represent the latest advancements in instructional equipment and delivery methods.

- Mini-DVD cameras are used to record student presentations, allowing students the opportunity to self-critique and monitor their progress in public presentations.

- Automotive and Heavy Equipment Management faculty members have produced a number of course packets, providing PowerPoint notes and hand-outs to all students, at a reasonable cost.

- Professors benefit from their participation in class offerings and special training presented by Ferris State University's Faculty Center for Teaching and Learning. This participation has resulted in thousands of dollars being earned by Automotive and Heavy Equipment Management faculty for use in enhancing the learning environment.

4. **Describe the types of professional development faculty have participated in, in efforts to enhance the learning environment. (e.g. Writing Across the Curriculum, Center for Teaching and Learning, etc.)**

Automotive and Heavy Equipment Management members regularly take advantage of training opportunities associated with enhancing instruction and upgrading technical expertise. They also benefit from participation in class offerings and special training presented by Ferris State University's Faculty Center for Teaching and Learning. This participation has resulted in thousands of dollars being earned by Automotive faculty for use in enhancing the learning environment. Examples of professional development

faculty have participated in to enhance the learning environment are listed below:

- Faculty members have taken part in WebCT training to enhance the program and improve interaction between students and staff.

- Faculty members have attended many NADA (National Automobile Dealers Association) conventions and seminars, to stay current on industry practices, and to network with many potential employers.

- Keeping up-to-date with current automotive technology is a primary objective of all staff. Faculty members participate in automotive technology update courses and seminars on a continuous basis.

5. **What efforts have been made to increase the interaction of students with faculty and peers? Include such items as developmental activities, seminars, workshops, guest lectures, special events, and student participation in the Honors Program Symposium.**

   Examples of efforts to increase interaction between students and faculty are listed below:

   - Automotive and Heavy Equipment Management Faculty have provided 100 % participation in the last five College of Technology's annual fall picnics, where students, staff and faculty share an evening of picnicking and entertainment. This event has been very successful in bringing faculty, staff and students together to become more familiar with each other, in a casual environment.

   - Automotive and Heavy Equipment Management students and faculty regularly participate in field trips, exposing students to current trends and technologies in the automotive industry. Some examples of field trip destinations include Ford Motor Company Automotive Training Center, Ford Technical Assistance Center Hotline, Chicago Auto Show, Daimler-Chrysler Museum, and Daimler Chrysler Training Center.

   - Automotive and Heavy Equipment Management students and faculty participate together in Ferris State University's student chapter of Automotive and Heavy Equipment Management

Student Organization (AHMSO). Meetings focus on professionalism, networking, socializing, and industry trends.

- Industry experts are regular presenters in many AHM classes. These presenters bring a unique perspective to students, and the students enjoy this type of interaction.

6. **Discuss the extent to which current research regarding pedagogy and curriculum infuse teaching and learning in this program.**

The Automotive and Heavy Equipment Management Program has been very effective at addressing current practices of teaching and learning.

- All students must visit (interview) people active in the automotive industry, then present that information to their peers and faculty, in terms of written reports and presentations. Reports are graded for content and writing skills. Students evaluate each other during student presentations and must also critique themselves, through their video taped presentations.

- Students must fulfill an internship, anytime after their junior year, as part of their educational experience. The experiential internship learning gives the student a significant advantage as they prepare for employment or advanced education.

- Students use critical thinking skills to develop knowledge of relationships between theory and the real world of automotive management.

- A number of projects are based on team activities, exposing students to this team concept, which is used in the automotive industry.

- Students develop their PC skills using the following MicroSoft software packages:
  - Windows
  - Word
  - Excel
  - PowerPoint
  - FrontPage
  - Explorer
  - LotusNotes

7. **What effects have actions described in (5) and (6) had on the quality of teaching and learning in the program?**

The Automotive and Heavy Equipment Management faculty believe the actions described in the two preceding sections have had a positive effect on the quality of learning in the program. Many discussions with employers, either through analyzing survey results, networking with employers while visiting interns, networking with employers when they visit campus to recruit, and holding annual advisory board meetings prove students are gaining the correct knowledge, skill sets and attitudes to be successful in today's work place. Alumni surveys also indicate the vast majority of our graduates are successful in this constantly changing industry.

H. Composition and Quality of Faculty

Describe and assess the composition of the faculty teaching courses in the program.

1. **List the names of all tenure and tenure-track faculty by rank.**

   a. **Identify their rank and qualifications.**

      1. Greg Denny - Professor (18 years at Ferris)
      2. Mike Ropele - Associate Professor (18 years at Ferris)
      3. Dan VanderWoude - Associate Professor (8 + years at Ferris)

      Please see attached resumes for details.

   b. **Indicate the number of promotions or merit awards received by program faculty since the last program review.**

      Since the last program review, one merit award and two promotions have been awarded to staff within the department. Those individuals are noted below:

      Professor
      Greg Denny

      Associate Professor
      Dan VanderWoude

      Merit Award
      Mike Ropele

   c. **Summarize the professional activities of program faculty since inception or the last program review (attendance at professional meetings, poster or platform presentations, responsibilities in professional organizations, etc.)**

      Program faculty participates regularly in professional organizations and activities. A listing of these activities is shown below:

      - NADA annual conference attendance
      - WebCT Training
      - Faculty Center for Learning and Teaching

2. Workload

a. <u>What is the normal, annualized teaching load in the program or department? Indicate the basis of what determines a "normal" load. On a semester-by-semester basis, how many faculty have accepted an overload assignment?</u>

The normal annualized teaching load for the Automotive and Heavy Equipment Management program is either 24 lecture credit hours or 36 contact hours. "Normal" load is determined by contractual agreement.

The following table illustrates faculty overload assignments for the last five years:

	Fall 2001	Win 2002	Fall 2002	Win 2003	Fall 2003	Win 2004	Fall 2004	Win 2005	Fall 2005	Win 2006
Total number of full-time faculty (not including adjunct faculty)	3	3	3	3	3	3	3	3	3	3
Number of faculty accepting overload assignments	3	3	3	3	3	3	3	3	3	3
Percentage of faculty accepting overload assignments (%)	100	100	100	100	100	100	100	100	100	100

b. List the activities for which faculty receive release time.

No Automotive and Heavy Equipment Management faculty have been released, the past five years, except for requested and earned sabbaticals. The Automotive Department chair is allowed release time to fulfill the duties of the position. Over the past five years, the department chair has averaged between 75% to100% release time.

3. Recruitment

a. What is the normal recruiting process for new faculty?

The recruiting process for new faculty involves a variety of advertising venues, reaching a diverse audience. These include the Detroit Free Press, Grand Rapids Press, Chronicle for Higher Education, Ferris Website, Automotive News, and the Big Rapids Pioneer.

b. What qualifications (academic and experiential) are typically required for new faculty?

The preferred academic requirement is a Master of Science Degree. The qualification does allow, however, a Bachelor of Science Degree with the stipulation that a Master of Science degree must be earned within five years of starting at Ferris. The experiential requirements involve a minimum of five years experience with approximately two years teaching experience, minimum.

c. What are the program's diversity goals for both gender and race/ethnicity in the faculty?

The program has no specific initiative in place to address gender and race/ethnic diversity within the faculty. The program adheres to university guidelines regarding recruiting, hiring, and interviewing practices.

d. **Describe and assess efforts being made to attain goals in (c).**

Affirmative action and Equal Employment Opportunity Legislation is in place that allow equal opportunity to both gender and race/ethnicity groups.

4. **Orientation. Describe and assess the orientation process for new faculty.**

New faculty participate in "New Faculty Training" provided by The Faculty Center for Teaching and Learning. Within the department there hasn't been a need for a formal orientation program as new faculty is updated and informed on a "need to know" basis. The department chair, senior faculty, and clerical staff are available to answer questions and lend guidance as individual needs arise.

5. **Reward Structure: e.g., salary, professional development funds, travel funds, UCEL and FSUGR incentive money.**

a. **Describe the reward structure in the program / department / college as it relates to program faculty. Indicate the type of reward and eligibility requirements.**

Salary amounts are reflective of an employee's industry credentials, degrees earned, teaching experience, and special skills or talents.

Increases and faculty promotions regarding the reward structure in the Automotive and Heavy Equipment Management program is governed by the current Ferris State University / Faculty contract.

b. **Does the existing salary structure have an impact on the program's ability to recruit and retain quality faculty.**

Yes, the reward structure does influence the program's ability to recruit and retain quality faculty.

One issue involves recruiting new faculty from the pool of teachers currently enrolled in the Michigan Public School Employee Retirement System (MPSERS). The potential source of veteran teachers now working in Michigan Public Schools is severely limited because of Ferris' non-alignment with the MPSERS system.

In addition, when making a comparison between Ferris State University and six other Michigan public universities offering similar degree programs (BS+), the following can be concluded:

- Professor salaries ranked sixth lowest out of seven Michigan public universities offering similar degree programs. (Lower 15th percentile)

- Associate professor salaries ranked fourth lowest out of seven Michigan public universities offering similar degree programs. (Lower 44th percentile)

- Assistant professor salaries ranked fourth lowest out of seven Michigan public universities offering similar degree programs. (Lower 44th percentile)

The Automotive and Heavy Equipment Management program prepares students to go into the automotive industry. All faculty worked in this industry before joining faculty ranks at Ferris. Salaries in this industry are consistently and historically higher than similar industries. We did lose a couple candidates in 1997 (last hiring date) due to not wanting to take such a pay cut. We do not know how many qualified candidates did not apply due to this salary discrepancy. Recruiting for new faculty positions has thus been impacted by salary amounts and benefit packages offered to perspective candidates.

c. **Is the reward structure, currently in place, adequate to support faculty productivity in teaching, research, and service? If not, what recommendations would you make to correct the situation?**

NO!. There are some positives, though, of how the reward structure supports issues noted in "c" above, which are listed below.

- Timme Grants have been utilized by faculty to fund special projects and initiatives.

- Tuition reimbursement has provided financial support to faculty pursuing higher degrees.

- Faculty serve on advisory committees, network with other professionals, and act as ambassadors of Ferris State

University. Usually another faculty member covers that faculty's class requirements, with no acknowledgement or remuneration.

- Professional Development Incentive (PDI) moneys provide faculty with funds to be used toward enhancing instructional initiatives and program goals.

- The Dean's office provides "as needed" funding for professional development opportunities such as seminars, travel funds, and conferences.

The obvious recommendation is to pay at least the average of what an instructor can make elsewhere, either in collegiate type teaching positions or in the automotive industry. This would also include providing a decent benefit package, rather than $6,000 in insurance premiums, or being asked (forced?) to go to a non-insurance type health benefit (ie "ferris flex').

d. Is enhancing diversity and inclusion a component of the reward structure? Please explain.

Enhancing diversity is not included in the reward structure within the program or department.

6. Graduate Instruction (if applicable)

a. List all faculty teaching graduate courses.

N/A

b. What percentage of graduate courses is taught by non-tenure-track faculty? Please comment.

N/A

c. What are the program's (or department's) criteria for graduate faculty?

N/A

d. Have all graduate faculty (including non-tenure-track faculty) met the criteria? Please comment.

N/A

7. **Non-Tenure-Track and Adjunct Faculty.**

   a. **Please provide a list for the last academic year of full-time non-tenure-track and adjunct faculty who taught courses in the program. For full-time non-tenure-track faculty, indicate the length of their appointments and the number of years of service at the University. Comment on the program's ability to retain non- tenure-track faculty.**

   No adjunct faculty were used the previous academic year. All AHM faculty worked overloads, taught one class out of the SE Michigan office (actually at Macomb College's University Center, in Utica Michigan, every Thursday night) and worked last summer, either teaching or visiting interns.

   b. **What percentage of program courses is taught by the faculty in (a)? What courses are they teaching? Please comment.**

   One hundred percent of all courses were taught by full-time faculty in the AHM program.

   c. **Describe the required qualifications (academic and experiential) for faculty listed in (a). Indicate if all faculty have met the criteria, and if not, what is being done to resolve the situation?**

   N / A

   d. **Does the program consider the current use of non-tenure-track faculty to be appropriate? Why, or why not?**

   N / A

   e. **If the program is accredited, what position, if any, does the accrediting body have regarding the use of non-tenure-track and adjunct faculty?**

   N / A

I. Service to Non-Majors

1. **Describe and assess the impact that delivery of service courses offered by the program or the department has on the program.**

   a. **Identify and describe the General Education service courses provided by the program faculty for other departments at FSU.**

      N/A

   b. **Identify and describe any non-General Education service courses or courses required for other programs. Comment on your interaction with the departments or programs for which the courses are provided.**

      The Automotive and Heavy Equipment Management program did provide one course for another program, AHEM 450 - Automotive Materials, for the Automotive Engineering Technology program (AET). This relationship ended this year (2006), as AET is developing its own version of this course, to incorporate more lab type education.

   c. **Discuss the impact of the provision of General Education and non-General Education service courses has on the program.**

      N/A

   d. **Does the program plan to increase, decrease, or keep constant, its level of service courses? Explain.**

      The Automotive and Heavy Equipment Management program has developed a non-technical business minor for College of Business students wanting to become involved, in a non-technical capacity, to the automotive industry. The program faculty is not sure what the Impact will be on our program, as the minor will not be officially available till the fall 2007 semester. We have also not had a lot of experience in this area to build a judgment upon.

      The Automotive and Heavy Equipment Management program is open to requests for service course offerings from other departments within the college and the university.

J. Degree Program Cost and Productivity Data

Submit and comment on Institutional Research and Testing data.

The latest cost data, from 2002-2003 (received information, through COT Dean's office, from Office of Institutional Research) shows the AHM program to be $191.18 per student credit hour. The information made available to this committee contains only AHM's cost, so there is no comparison available.

Average productivity of the AHM program for the 2004-2005 school year was 501.33 Student Credit Hours / Full Time Equated Faculty (SCH/FTEF). This compares to the College of Technology's average of 356.20 SCH/FTEF. Ferris State University's overall average is 444.01 SCH/FTEF. AHM is ranked second in the College of Technology (not including two service only programs, metallurgy and photography). Only Construction Management comes in at a better ratio, 534.03 SCH/FTEF.

Comparing the AHM program to other programs in the College of Technology is a better comparison, than comparing AHM to the university as a whole. The College of Technology strives to keep class size low for better interaction between student and instructor. There are also many courses in the College of Technology that are lab intensive.

K. Assessment and Evaluation

1. **List and describe what variables are tracked and why, when assessing the effectiveness of the program (e.g. mastery of essentials of subject area, graduation rates, employment rates, pass rates on professional exams).**

   The following variables are tracked to assess the effectiveness of the program:

   - The minimum grade point requirement has been raised, from 2.0 GPA, to 2.3, to more closely correlate with entry standards, university wide.

   - Graduate employment rates are tracked through Institutional Research and Testing (IRT). Data is compiled by IRT through the Graduate Follow-Up Survey. The data collected is then assessed to determine the program's effectiveness at providing employers with quality entry level employees.

   - Graduation rates are tracked through Institutional Research and Testing (IRT). This information is used to compare graduation rates of Ferris' Automotive and Heavy Equipment Management students with graduation rates of students from other institutions offering similar programs.

2. **Provide trend data for the variables listed in (1). Compare the data to accreditation benchmark standards if applicable, or provide some other type of assessment of the data.**

   Assessment of data regarding the variables listed in (1) is stated below:

   - According to the data provided by Institutional Research and Testing (IRT), the employment rate for graduates from the Automotive and Heavy Equipment Management program is at 92%. *(Data provided by 2003-2004 Graduate Follow-Up Survey from IRT)*

   - The graduation rate for students in the Automotive and Heavy Equipment Management program is 52% completion after 3 years for those students that started the program in fall 2003. *(Data provided by Institutional Research and Testing Official 7th Day Counts pg. 7)*

3. **Describe how the trend data in (2) is used to assess the rigor, breadth, and currency of the degree requirements and curriculum.**

The 92% employment rate as reported by Institutional Research and Testing speaks well of the program's ability to provide quality employees to industry. This trend is an indicator of rigorous and current curriculum, and appropriate degree requirements. Because of the Automotive and Heavy Equipment Management program's reputation for its quality program and qualified graduates, employers actively seek Ferris State University graduates to hire.

But, this data seems low, for a couple possible reasons. First off, only 33 graduates responded. When we were allowed to survey seniors before they left campus, our numbers were quite a bit higher. Second, can a survey be trusted that puts our program in the wrong department (we are listed under Heavy Equipment).

The higher than average graduation rate is an indicator of the program's ability to attract and retain quality students. We must also take into consideration we are a third and fourth year program. Typically, graduation rates are higher for these type programs, compared to freshmen entering college for the first time. This "weeding" process results in a more prepared student.

4. **Describe how the trend data in (2) is used to assess the extent to which program goals are being met.**

Trend data previously described demonstrates the extent to which program goals are being met, examples are noted below:

- Trend data shows a correlation with providing students the necessary skills and knowledge to accept positions in the automotive industry.
- Trend data shows a correlation with providing students with flexible options that increase their opportunities to successfully compete in the job market.
- Trend data shows a correlation between graduation rates and hiring percentages.

L. Administrative Effectiveness

1. **Discuss the adequacy of administrative and clerical support for the program.**

The department consists of the following programs:
Automotive Service Technology
Automotive Body
Automotive and Heavy Equipment Management
Automotive Engineering Technology.

The department has 18 tenure/tenure track faculty members, and 5 adjunct faculty members. The program has three full-time tenure-track faculty.

In addition, there is one secretary and one account clerk for the department. The secretary's duties are split between all the programs, providing clerical and accounting support for 18 faculty members and the department chair. The account clerk is responsible for operations pertaining to the service floor operation, dealing with parts inventory, customer collections, and part-time student employment scheduling and payroll.

To provide comparison, the chart below illustrates the responsibilities of department chairs and clerical staff for other departments within the College of Technology.

DEPARTMENT	NUMBER of CHAIRS	NUMBER of SECRETARIES	NUMBER of FACULTY	NUMBER of PROGRAMS
Architectural Technology and Facilities Management	1	1	5	2
Automotive Technology	**1**	**1**	**18**	**4**
Construction Technology and Management	1	1	11	3
Electrical/Electronics and Computer Networks & Systems	1	1	7	3
Heating, Ventilation, Air Conditioning, and Refrigeration	1	1	14	2
Heavy Equipment	1	1	4	2
Manufacturing Technology	1	1	16	3
Mechanical Design	1	1	12	4
Plastics and Rubber Engineering Technology	1	1	7	4
Printing and Imaging Technology Management	1	1	7	3
Surveying Engineering	1	1	5	2
Welding Engineering Technology	1	1	5	2

As illustrated above, when compared to other departments within the College of Technology, the Automotive Technology department chair and clerical support have the greatest number of combined faculty and program responsibilities.

2. **Are the programs / departments run in an efficient manner? Please explain.**

Program requirements are constantly being evaluated by the department chair, with feedback from faculty. Every attempt is made to maximize resources and make the department work more efficiently.

As noted in the chart above, Automotive Technology is the largest department in the College of Technology with no additional clerical or administrative staffing. With the enrollment trend the limited number of support staff has to be addressed.

3. **Are the class and teaching schedules effectively and efficiently prepared? Please comment.**

Student needs are addressed first, when scheduling classes in the Automotive and Heavy Equipment Management Program. The AHM faculty do most of the scheduling, getting it approved by the department chair. In classes where student numbers dictate additional sections, they are scheduled later in the registration process. If a known number of students need a course at a specific time (for example, sophomores needing Auto Service floor, but have room to start into the AHM program one semester early, the AHM faculty will offer a junior course at the appropriate time to accommodate those students.

4. **Are students able to take the courses they need in a timely manner? Please comment.**

Yes, classes are scheduled to allow students the opportunity to take the courses in sequence, with additional time in the schedule for general education courses. There is also a winter start to the program as well. For those students wanting to go year around, the last semester, senior year, is offered in the summer, so students can leave campus in December, only needing the internship to graduate.

Daniel R. Vander Woude

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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 and Curriculum Design**
- **Strong Oral and Written Communication Skills**

EDUCATION

WESTERN MICHIGAN UNIVERSITY
Kalamazoo, Michigan
Master of Arts, Vocational/Technical Education - 1983

WESTERN MICHIGAN UNIVERSITY
Kalamazoo, Michigan
Bachelor of Science, Cum Laude, Industrial Education - 1976

CALVIN COLLEGE
Grand Rapids, Michigan
General Studies and Psychology

SAN BERNARDINO VALLEY COLLEGE
San Bernardino, California
Electronics and Computer Science

EXPERIENCE

FERRIS STATE UNIVERSITY
College of Technology
Big Rapids, Michigan

Associate Professor **2004 to Present**
Assistant Professor **1998 to 2004**
Automotive and Heavy Equipment Management, Teaching courses in Automotive Marketing and Distribution, Dealership Accounting, Management of Fixed Operations, Automotive Internet Marketing, 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.

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 performance and Acura dealer survey responses (1996).

Contributions:
♦Developed standardized dealer contact reports in MSExcel 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 and coordinated training needs with local business establishments.

STURGIS PUBLIC SCHOOL DISTRICT
Sturgis, Michigan

Automotive Training Instructor **1976-1978**

Taught all phases of automotive technology and repair

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 2001

Member, Communication Department Curriculum/Objectives Advisory Committee, 2002-Present

Member, Automotive Center Curriculum Committee, 2001-Present

Member, National Education Association, 1976–1988, 1998-Present

Member, Michigan Education Association, 1976–1988, 1998-Present

Member, Ferris Faculty Association, 1998-Present

REFERENCES

References available upon request

Michael A. Ropele

10835 Red Oak Ridge
Howard City, MI 49329
231/937-7620
ropele@pathwaynet.com

EDUCATION

Master of Science Degree in **Career & Technical Education**, 2003, Ferris State University – Big Rapids, MI 49307.

Bachelor of Science Degree in **Automotive and Heavy Equipment Technology**, 1980, Ferris State University.

Associate in Applied Science Degree in **Automotive Service Technology**, 1978, Ferris State University.

Completed a sabbatical leave which focused on current automotive dealership management philosophy, techniques, and trends during fall of 2000.

In May of 2000, completed a 40-hour property and casualty insurance class at Michigan State University. In addition to the professional development benefits, this class facilitated successful completion of the State of Michigan insurance licensure.

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, Warranty & Customer Relations, and Automotive History & Culture.

Program Coordinator – Automotive and Heavy Equipment Management, Ferris State University, Big Rapids, MI, 5/94 to 5/2000. Taught a 50-100% teaching load as well as performed the following for both on-campus and off-campus programs: supervised faculty and support staff, managed curriculum, coordinated scheduling, managed the budget, provided career advice to students, coordinated internship activities, interacted with industry, coordinated on-campus recruiting visits with employers, managed the Automotive Center Computer Lab, provided tours for prospects, recruited, and coordinated summer orientation and registration activities.

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, and various recruiting activities.

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. 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 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.

MEMBERSHIPS & ASSOCIATIONS

Member/Secretary, Board of Directors, West Michigan Credit Union, Grand Rapids, Big Rapids, Reed City, and Cadillac, MI
President, Riverwood Forest Homeowner's Association, Howard City, MI
Member, Knights of Columbus - Howard City, MI
Member, Loyal Order of Moose - Lodge #1474, Norway, MI
Member, National Education Association
Member, Michigan Education Association
Member, Ferris Faculty Association (E-board member from 1993-1997.)

FERRIS COMMITTEE / ADVISING ASSIGNMENTS

9/05-3/06	Member of the College of Technology Dean Search Committee
2005-2006	Member of the College of Technology Promotion Committee
2005-2006	Chair of the Automotive & Heavy Equipment Management Program - Program Review Committee
2005-Pres.	Member of the Automotive Department Tenure Committee
2004-Pres.	Chair of the Automotive Department Scholarship Committee
1988 - Pres.	Co-advisor to the Automotive & Heavy Equipment Management Student Organization (A.H.M.S.O.)
9/04-	Team Captain for the College of Technology Student Welcome Back Picnic
2001-2004	Member of the College of Technology Sabbatical Leave Committee (Also served on this committee from 1993-1997.)
2003-4	Chair, Academic Senate's Professional Development Committee
2001-2004	Member, Academic Senate's Professional Development Committee
2000	Co-Chair of the Automotive & Heavy Equipment Management Program Review Committee
1997-98	Co-Chair, Ferris' Distinguished Teacher Award Committee
1996-97	Member, Ferris' Distinguished Teacher Award Committee
1993-97	Elected and served two terms on the Ferris Faculty Association Executive Board (Representative for the College of Technology)
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 as advisor to Ferris' College of Technology Student Council.

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)

Produce course packets, for student purchase, for all courses taught (AHM 303, AHM 402, and AHM 450)

Eliminate $300 student workbook by implementing Excel spreadsheet applications into AHM 303. 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 (1999-2000) 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.

SECTION 4

FACILITIES AND EQUIPMENT

A. Instructional Environment

1. **Are current classrooms, labs, and technology (both on-campus and at off-site locations) adequate? Explain.**

The classrooms used most often by the Automotive and Heavy Equipment Management program are Automotive Center rooms 102, 104, 105, and 108. Off-site instruction is offered at Macomb Community College's University Center and room assignment varies from semester to semester.

Automotive Center Classrooms:

Room 102 is a small classroom seating only 20 students. The room has been outfitted with "hand-me-down" instructional technology with the exception of a three year old document camera. It is a functional room but lacks whiteboard space and air-conditioning.

Room 102 has no air conditioning and can be very uncomfortable to teach in as the temperature rises in the fall and spring. The air handling unit in this room has only two speeds--off and full speed. The insulation between this room and the adjacent classroom is inadequate as voices can be heard between the rooms during lectures.

Room 104 is the Automotive Center computer lab. This room is air conditioned and is a comfortable teaching environment. It lacks a podium and built-in LCD projection equipment. Portable projection equipment is available in the Automotive Center. The room is outfitted with 17 workstations and is used extensively throughout the day. This room will soon be inadequate for the needs of the automotive faculty as web-based delivery of information and instructional materials by manufacturers increases.

Rooms 105 and 108 have recently been converted into "smart classrooms". New paint, seating, table tops, and carpeting have been installed within the last year. Each room was outfitted with new multimedia stations at the front of the room with new LCD projection units. A document camera is also included in room 105 and a "write-on" monitor screen is available in room 108.

The only drawback of these two classrooms is the noisy air-handling unit mounted above room 108. It is difficult to lecture without shouting, as the noise makes it hard for students to hear in the back of the room.

Macomb Community College:

The AHM program offers one course within the major at Macomb Community College's University Center each semester (F/W/S) on Thursday evenings. Room assignment in the University Center varies from semester to semester, and the rooms are more than adequate with space and instructional technology. AHM staff bring a laptop to Macomb and connect to on-site technology for instruction.

2. **How does the condition of current facilities impact program delivery? Explain.**

Two items impact delivery of the AHM curriculum: a) the small classroom seating space in room 102, b) the limited number of computer workstations in room 104.

Room 102 is often used to teach AHEM 401, Management of Fixed Operations. This class includes dealer financial statement analysis which often exceed 5 pages in length on legal and larger sized paper. It is difficult for students to lay out the pages on the tables, watch/listen to the lecture, and take notes. Use of a document camera has improved the situation to some degree.

Room 102 also has a table mounted LCD projector. This effectively eliminates one table for student use. Requests have been made to mount this projector on the wall opposite from the screen, this has not been completed.

Even though there are 17 PC workstations, teaching any computer based material in the computer lab (104) limits the class size to no more than 15. The primary reason is that one workstation is used by the instructor, and one workstation is positioned right below the projection screen making it impossible for a student to be seated at the base of the screen.

3. **Describe the program's projected needs with respect to instructional facilities.**

With the exception of the items listed in the previous section, there are no current or foreseen needs with respect to instructional facilities for the AHM program. The condition of the Automotive Center in general is another story.

There are four areas of concern. The faculty offices, the lack of adequate conference room space, restroom facilities, and the condition of the interior trim.

The layout of the faculty offices in the automotive center consists of a large room outfitted with 22 cubicles (Room 103). While this may be fine for faculty who spend little time in their office, it is very difficult for faculty to advise students, do research, or have private conversations with industry contacts. Consideration for individual faculty office space in the future is paramount.

The conference room in Room 103 has a table capable of seating eight people comfortably. Given over 20 faculty in the Automotive Center, it is difficult to have meetings in the building that are confidential in nature.

The last renovation of the Automotive Center took place back in 1987-1988. At that time the renovation only included classrooms and labs. The common areas were not improved and are basically like they were when the building was built during the 1950s. The number of students in the building each day during the school year often exceeds 400 (mostly male). The current restroom is in dire need of renovation. It often resembles something less desirable than an average truck stop on an interstate highway.

4. **Describe current plans for facilities improvements and indicate their status.**

There are no known plans for improving, modifying or rebuilding the current facility to meet current and future needs.

5. **Describe how proposed changes or improvements to facilities would enhance program delivery.**

N/A

B. Computer Access and Availability

1. **Outside of computers in faculty and staff offices, identify the computing resources (hardware and software) that are allocated to the program.**

   The Automotive center was one of the first buildings on campus to be equipped with wireless Internet capabilities. The Automotive department purchased 24 laptop computers that students can check out and be used anywhere in the building. In addition to these laptops, students also have access to the computer lab in the automotive center which has 17 workstations that were updated in 2005.

   The workstations in the computer lab have Microsoft XP and Office 2003 Professional version installed. In addition, Microsoft Front Page 2003 is included. The software packages are sufficient for instruction and student use at this time.

2. **Discuss how these resources are used.**

   The computer lab is used on a daily basis by students working on projects for both automotive related and general education courses. It is also used by some classes for on-line tests and practice exercises (WebCT), and for the Automotive Internet Marketing class (AHEM 460).

   Individual laptops are used primarily on the service floor, or in labs for repair information via the Internet. Students may also use them in lectures to take notes.

3. **Discuss the adequacy of these resources and identify needed additional resources.**

   The computer lab with only 17 desktop units is inadequate to conduct a normal size class. Lecture classes are often scheduled with 25 students and if an instructor would like to use WebCT for exams, they must be completed in multiple sessions or scheduled in a computer lab outside of the Automotive Center. (FLITE)

   The current computer lab is not large enough to add additional workstations. A larger room would be needed in the Automotive Center to accommodate the increased number of computers.

Additional laptops, battery packs and chargers would help alleviate concerns.

4. **Does an acquisition plan to address these needs currently exist? Describe the plan. Has it been included in the department or college's planning documents?**

   There are no plans to change or add space to the auto building to address this concern.

5. **Discuss the efficacy of online services (including WebCT) available to the program.**

   WebCT is used by several faculty in the Automotive Center. Student response has been very positive. Some faculty use it simply to keep students informed of upcoming assignments, grades and other similar classroom management functions, while others use it much more extensively. Regardless of the extent to which it is used it has added value to the interaction between faculty and students.

6. **Discuss the adequacy of computer support, including the support for on-line instruction if applicable.**

   Support for on-line instruction is offered by the University ATC and BTC computer consortium help desks. Their service is generally prompt even though call volume dictates their response time.

   There is also support from the Faculty Center for Teaching and Learning for those instructors who utilize WebCT in their courses. There are additional computer resources on campus for students that do not have their own. This allows access to on-line classes and support.

C. Other Instructional Technology

1. **Identify other types of instructional technology resources that are allocated or available to the program.**

   As of this review, there are no additional instructional technology needs or resources that are used in other colleges or universities that the AHM program requires at this time.

2. **Discuss how the resources are used.**

   N/A

3. **Discuss the adequacy of these resources and identify needed additional resources.**

   N/A

4. **Does an acquisition plan to address these needs currently exist? Describe the plan. Has it been included in the department or college's planning documents?**

   N/A

5. **Discuss the impact of adequacy of other types of instructional technology resources and support of these resources on the program.**

   N/A

D. Library Resources

1. **Discuss the adequacy of the print and electronic and other resources available through FLITE for the program.**

   FLITE staff have been very helpful to the AHM program by ordering and cataloging several automotive resources to provide research material for students in the major.

   The instructional studios outfitted with over 30 PC workstations have been a great resource for test/exam administration on WebCT (due to only 17 in the Automotive Center computer lab).

2. **Discuss the service and instruction availability provided by the Library faculty and staff with respect to the needs of the program.**

   FLITE is used by the entire AHM faculty in each class taught within the program. In beginning courses in the major, the FLITE staff provide tours of the facility where students are acquainted with the services and resources available. In higher level AHM courses, FLITE is used by students to do research for course assignments. Recently retired FLITE staff person Ray Dickinson has been an enormous help to AHM students over the years and will be missed.

3. **Discuss the impact of the budget allocation provided by FLITE to your program. Is the budget allocation adequate? Explain.**

   FLITE budget allocation for the AHM program is adequate. Replacing Ray Dickinson with competent staff would be the highest priority in our opinion.

SECTION 5

CONCLUSIONS

A. Relationship to FSU Mission

The Ferris State University mission states that "Ferris State University will be a national leader in providing opportunities for innovative teaching and learning in career-oriented, technological and professional education".

The AHM program has taken advantage of many of the innovative teaching opportunities that Ferris State University has to offer. Things like WebCT, wireless internet, and many of the workshops offered by the Faculty Center for Teaching and Learning, enhance the teaching/learning process on a daily basis.

The Automotive Department has been able to take what Ferris State University has to offer and what the automotive industry requires and create a curriculum that incorporates many of the latest technologies and research on the teaching/learning process.

The Automotive Department has been fortunate enough, through its affiliation with its many manufacturer and supplier connections, to be able to offer students the latest in automotive technology, training, and management principles. This allows students to obtain that "career-oriented" education that Ferris State University is so well known for.

Through the dedication of the faculty, the generosity of corporations and alumni, and the resources provided by the University, the AHM program and the Automotive Department have been able to build a program that fulfills the University mission statement.

B. Program Visibility and Distinctiveness

The Automotive and Heavy Equipment Departments provides many options for students. This is one of the reasons for its success and its ability to attract large numbers of students.

Students have the option of a two year or four year degree. Most institutions that offer an automotive or heavy equipment degree can only offer an associates degree. At Ferris the students can continue on for a baccalaureate degree without going through the transfer process.

Students in baccalaureate degrees must complete an internship to graduate. These internships have made the program very visible and well recognized throughout the United States. There are also many graduates of the program that are employed in areas where they can help place interns, hire students, or recommend future students to our program.

C. Program Value

The goals of the Automotive and Heavy Equipment Management program are divided into four main categories. These are the groups the program primarily serves.

The first group is the students enrolled in the Automotive and Heavy Equipment Management program. This program prepares students to compete successfully in the Automotive/Heavy Equipment industry.

The second group is employers. By maintaining close relationships with industry, the faculty is made aware of what employers need in their employees. This usually gets communicated to the faculty through advisory committee meetings and on internship visitations. These recommendations become part of the curriculum review process.

The third group is the faculty themselves. The faculty maintains close industry contacts that benefit students in job and internship placement, along with the ability to gather current industry training materials. The faculty also plays a key role in this preparation by maintaining their currency with the automotive industry and the educational process by attending technical classes and workshops offered through the Faculty Center for Teaching and Learning.

The fourth group is the University. The faculty spends a considerable amount of time working to build the reputation of the Automotive and Heavy Equipment Management program both within the industry and on campus. Many of the faculty serve on multiple committees throughout the University community. From the Academic Senate on down faculty have served to help improve the University and to provide a voice for the College of Technology. The Automotive and Heavy Equipment Management faculty serve unselfishly on committees such as Student Judicial Services, Technology in the Classroom, Sabbatical, Promotion, College of Technology Dean's Search, and Substance Abuse to name a few. The Automotive Department also offers low cost automobile repair to the campus community as well as the off-campus community. This brings hundreds of people to the Automotive Center each year and helps offset some department costs.

D. Enrollment

Enrollment in the Automotive and Heavy Equipment Management (AHM) program has been firm over the last five years. It has averaged 50 new students for the years 2001 to 2005. (AHM's annual fall target is 40 students.)

In the past, the AHM program has only offered a "2 + 2" structure. All incoming freshman regardless of the degree being pursued, started in an associate degree program first. Starting Fall 2007, the AHM program will start a 0+4 program option as well for those who know they want the AHM degree early on. Consequently, incoming freshman will be labeled as to what degree they desire on day one. This will cause numbers to be reallocated among the different degrees.

This may cause a substantial drop in the A.A.S. degree numbers, however the students in the 0+4 option will be taking almost the same curriculum in the first two years, so individual class numbers should not diminish substantially. In other words, Automotive Service will be teaching service courses for the 0+4 AHM degree option.

During winter semester 2006, an AHM minor was approved. It's official name will be "Minor in Automotive Management". College of Business majors as well as students in other disciplines interested in management careers in the automotive industry are the intended audience.

E. Characteristics, Quality and Employability of Students

For years the AHM program was the only baccalaureate degree option for Automotive Service and Heavy Equipment Service associate degree students within the College of Technology. Currently, students have a second option: Automotive Engineering Technology for Auto Service students and Heavy Equipment Service Engineering Technology for Heavy Equipment students.

A more aggressive recruiting effort has been implemented to offset this added competition. In the last AHM student survey, 41% of the students were transfer students. The key to maintaining enrollment numbers is to focus on transfer students.

The quality and employability challenge is on-going. The importance of keeping the appropriate mix in developing student technical, business, and communication skills will be the key to the future.

F. Quality of Curriculum and Instruction

According to all of the groups surveyed (see section 2) satisfaction with instruction and curriculum is very high. This speaks quite highly of the faculty and the efforts they have put forth to revise and update the curriculum, not to mention the hours spent in training to keep their skills current.

Placement rates for graduates of the Automotive and Heavy Equipment Management program are also a good indicator of the overall quality of the program. Graduates reported an approximate 92% placement rate with starting salaries meeting or exceeding state and national averages.

G. Composition and Quality of the Faculty

The faculty in the AHM program have a very diverse background. All have come from industry with many years of experience; technical, sales & marketing, management and educational. This type of experience has become a requirement for employment in the program and ensures the faculty member not only is a subject matter expert but can also teach the subject in a logical, understandable manner.

According to surveys of both students and employers most responses were positive in regards to faculty.