

SPECIFIC SHORT AND LONG RANGE GOALS
FOR AUTOMOTIVE TECHNOLOGY MANAGEMENT (ATM)
(6/17/19 rev.)

The Automotive Technology Management program has a series of short and long-range goals to serve as direction for the future development of the program at the University of Central Missouri. These goals and outcomes were reviewed and revised at the ATM Industrial Advisory Board meetings in 3/2006, 10/2012, 10/2015, 10/2016 and 10/2018.

Short Range Goals for Automotive Technology Management: (2018-2023)

Goal #1: To increase automotive program enrollment 10% (from 73 to 80 majors) by 2019.

Strategies: Continue to promote the uniqueness of the Automotive Technology Management program within Central's 21 county service area through visits to high schools and area vocational technical schools. Continue to publicize the over \$1,300,000.00 in external equipment and scholarship donations to the automotive program since 1999 in Central's Alumni News as well as in area newspapers and trade publications.

Goal #2: To improve faculty advisement of students within the program.

Strategies: Continue to develop the system by which each automotive student is assigned to a specific faculty advisor within the program.

Goal #3: To maintain high quality classroom and laboratory facilities.

Strategies: Continue to seek input from our Automotive Industrial Advisory Board for recommendations as to specific improvements for laboratory and equipment upgrades. Continue to pursue on-campus grants as well as off-campus donations to fund needed classroom and laboratory changes.

Goal #4: To continue relationships with the professional automotive and manufacturing organizations in the major population areas of the state of Missouri as well as continue the Industry Advisory Board commitment to the program and the industry.

Strategies: Encourage faculty to become active members in the Kansas City chapter of the Society of Automotive Engineers (SAE). Continue to promote faculty and student involvement with regional automotive companies. Continue to hold Automotive Industrial Board meetings at least twice per year to seek input as to methods to improve the program. Continue to bring new members into the advisory board from diverse backgrounds within the automotive industry.

Goal #5: To extend commitment and support to the UCM student chapter of the Society of Automotive Engineers (SAE) and their progress in SAE sponsored competitions.

Strategies: Continue to assign one or more full-time faculty as an advisor to the student chapter in order to provide leadership and support in the various group activities. Encourage the SAE student chapter to work on projects that benefit both the local community as well as the university.

Goal #6: To enhance the University's "State-Wide Mission in Professional Applied Science and Technology" as established by the Coordinating Board for Higher Education.

Strategies: Continue to promote and advertise Central's Automotive Technology Management program's uniqueness as the only four-year B.S. degree program in automotive technology within the state and one of only

20 such programs in the country.

Goal #7: To continue the development of the assessment plan currently in practice for the Automotive Technology Management program.

Strategies: Continue to promote the National Automotive Technicians Educational Foundation's (NATEF/ASE) student exams as part of our assessment package by implementing the NATEF student exams as a requirement for degree completion. Feedback from the exam scores will be used to make improvement in the curriculum. Feedback from the ATMAE and NATEF visiting teams will also be used to make curriculum and laboratory improvements. Continue to use feedback from the Automotive Industrial Advisory committee and the alumni follow-up surveys to make curriculum and laboratory improvements.

Long Range Goals for Automotive Technology Management: (2018-2028)

Goal #1: Maintain the ATMAE accreditation and NATEF certification of the program now that these credentials have been achieved.

Strategies: Continue to follow and document compliance with all ATMAE and NATEF guidelines and requirements for continued accreditation and certification. Documentation of compliance is required for the re-occurring site visits required by both groups.

Goal #2: Develop a Faculty/Industry Alliance Program (FIAP). Establish an endowment to support developing and maintaining the currency of the faculty.

Strategies: Use the program specific advisory committees and their contacts to set up cooperative projects with industry for faculty. Provide release time and financial support to allow faculty to participate in cooperative projects with industry.

Goal #3: To reach 25 % of the students within the major being female or of a minority.

Strategies: Continue to promote the broad opportunities within the field of automotive technology management for minorities and females when conducting school recruiting visits. Use Central's Alumni News publication and other media to highlight the success of female and minority graduates of the program.

Goal #4: To develop a "Center for Automotive Technology Management Research and Education" on the campus of the University of Central Missouri.

1. The Center will provide current data and materials to faculty in the department and to the industry, while providing an income stream to the department.
2. The Center will provide internships and industry liaisons between faculty at Central and faculty around the world. It will also provide international student internships to those students wishing to specialize in the international automotive field.
3. The Center will provide research and training opportunities directed at recruiting more women and minorities into automotive professions.
4. The Center will provide consulting opportunities with companies in the automotive field within the United States.
5. The Center will provide a pool of expertise, which the automotive industry can draw upon to advance their efficiency and effectiveness.

Strategies: Encourage faculty to conduct research in the field of automotive technology and to present and publish their findings, thus promoting the strength of Central's automotive program in the research field. As part of this effort release time will need to be given to faculty to allow them to develop and pursue a research agenda.

AUTOMOTIVE TECHNOLOGY MANAGEMENT PROGRAM (ATM) OUTCOMES

The focus of the Automotive Technology Management program is designed to prepare automotive professionals who possess the abilities (skill and knowledge) needed to be able to function competently in a wide variety of technical and managerial roles in the motor vehicle industry. The following outcomes and competences were developed and revised by the ATM Industry Advisory Board at the 3/2005, 3/2007, 2/2012, 10/2015, 10/2016 and 10/2018 meetings, as well as through feedback from graduate surveys. More specifically, graduates of the program will:

OUTCOME 1: *Graduates will demonstrate and consistently display the technical and managerial skills, traits and knowledge of automotive professionals.*

Component 1: Management and Marketing.

- a. Graduates will complete projects effectively and efficiently in a team environment.
- b. Graduates will Identify, analyze and solve technical, management and marketing problems related to their field of automotive specialization.

Component 2: *Technical Proficiency to include the application of the principles of Mathematics, Science and Physics.*

- c. Graduates will demonstrate a mastery of skill(s) related to one or more areas of technical, management or marketing specialties in the major area of study.
- d. Graduates will apply principles of mathematics, science and electrical physics to high-technology automotive environments and problems.

Component 3: Computer Applications and Automation.

- e. Graduates will select and use the proper type of computerized equipment to obtain technical information and diagnose a wide variety of automotive problems.
- f. Graduates will use computers to design and verify the proper operation of hydraulic and pneumatic systems.

OUTCOME 2: *Graduates will utilize professionalism to communicate effectively with peers, faculty and other industry professionals.*

- g. Graduates will demonstrate communication and presentation skills by oral, verbal, written and electronic means.
- h. Graduates will be able to listen effectively as well as interpret and convey technical information.

OUTCOME 3: *Graduates will demonstrate* a systematic approach to critical thinking and problem solving.

- i. Graduates will identify, select and use problem-solving techniques.
- j. Graduates will observe, document and develop industry accepted procedural methods and work orders.
- k. Graduates will demonstrate critical thinking to reason and anticipate results.

OUTCOME 4: *Graduates will exhibit a global awareness.*

- l. Graduates will show concern for the global working and natural environments and will abide by appropriate laws, regulations and standards.
- m. Graduates will demonstrate sensitivity to human and cultural diversity in a multicultural environment.

OUTCOME 5: *Graduates will reflect professionalism, university values and ethics in decision making.*

- n. Graduates will demonstrate understanding and utilize effective leadership and supervisory traits to include recognizing and reflecting ethical action and conduct as well as being able to identify potentially compromising situations and seek counsel if required.

NOTE: Specific competencies addressed are reflected in each course syllabus. Specific intended competencies to be addressed in each course are highlighted.