

ACADEMIC AFFAIRS

Mission Statement, Program Outcomes, and Assessment For Associate Degree in Automotive Technology

Program Mission:

The Automotive Technology Associate Degree Program provides students with a comprehensive fundamental knowledge of the automobile mechanical, electrical, computer and hydraulic components. The student upon graduation, will be a well rounded entry level technician, having both the technical skills to enter the job market and the social/cultural skills that is a by product of the Associate Degree.

Program Outcomes:

Automotive Technology

Graduates with a degree in Automotive Technology should be able to demonstrate knowledge and skills in the following areas:

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| A. Diagnose and Repair Cooling Systems | AUT 103, AUT 241, AUT 262 |
| B. Diagnose and Repair Basic Heating/Air Conditioning | AUT 241, AUT 262 |
| C. Basic Theory of Engines | AUT 101, AUT 103, AUT 262, AUT 157 |
| D. Diagnose and Repair Drive Line Problems | AUT 221, AUT 262 |
| E. Diagnose Engine Drivability/Condition | AUT 101, AUT 103, AUT 132, AUT 135, AUT 147, AUT 146, AUT 231, AUT 247, AUT 151, AUT 262, AUT 157 |
| F. Perform Scheduled Maintenance Services | AUT 103, AUT 112, AUT 115, AUT 132, AUT 221, AUT 151, AUT 262, AUT 157 |
| G. Diagnose and repair Basic Steering and Suspension | AUT 221, AUT 262 |

H. Diagnose and Repair Front & Rear Differentials	AUT 115, AUT 262
I. Repair Manual Transmission & Clutch Assembly	AUT 115, AUT 262
J. Diagnose and Repair Automatic Transmission & Transaxles	AUT 151, AUT 262
K. Diagnose and Repair Brake Systems	AUT 112, AUT 262
L. Apply Specialized Electronics Training	AUT 132, AUT 135, AUT 231, AUT 221, AUT 146, AUT 247, AUT 262, AUT 147, EET 101 MAT 155, CPT 170
M. Diagnose and Repair Exhaust System	AUT 103, AUT 146, AUT 247, AUT 262
N. Diagnose and Repair Emission System with Supervision	AUT 146, AUT 247, AUT 262, AUT 147
O. Diagnose and Repair Electrical System with Supervision	AUT 132, AUT 231, AUT 262
P. Follow Environmental Regulations	AUT 101, AUT 103, AUT 112, AUT 135, AUT 147, AUT 115, AUT 241, AUT 151, AUT 262, AUT 157
Q. Practice Positive Working Relationships	AUT 262, AUT 157
R. Follow Written Instructions	AUT 101, AUT 103, AUT 135, AUT 112, AUT 115, AUT 221, AUT 132, AUT 231, AUT 147, AUT 146, AUT 247, AUT 151, AUT 262, AUT 157
S. Follow Rules and Regulations	AUT 101, AUT 103, AUT 135, AUT 112, AUT 115, AUT 221, AUT 132, AUT 231, AUT 147, AUT 146, AUT 247, AUT 151, AUT 262, AUT 157, AUT 241,

Assessment Methods:

Direct Student Learning Outcomes

In order to assess the students' overall performance and knowledge the Automotive Technology Degree program uses a final course or "capstone course". This course is AUT 262 Advanced Diagnosis and Repair. This course covers the

required AUT curriculum competencies and gives the student the opportunity to demonstrate their knowledge and ability. In the past year 100% of students attempting the capstone course successfully completed it with a C or better.

The students' academic knowledge and skill will be validated through the "Work Keys Career Readiness Certification". The three areas that the students test in are "reading for information (RFI)", "applied mathematics (AM)", and "locating information (LI)". The tests will be given in the spring of 2005.

Indirect Student Learning Outcomes

The Program faculty review the following indirect measures of student and program success yearly, or as needed, to ensure program viability: grade distribution and failure rates; student evaluations; job placement results; employer satisfaction survey; enrollment statistics; retention rates, and graduation rates.

Retention

OCtech Benchmark #1 – The program will have retained in the following Fall semester not less than 60% of the new students who enrolled in the prior Fall semester.

- Over the last three years, program retention has been: 2002 (67%), 2003 (67%), and 2004 (53%).

Job Placement

OCtech benchmark #2 – Using the State Technical College System definitions for employment, not less than 80% of the graduates of the program will have secured employment in the field.

- Over the part three years, job placement has been: 2001 (100%), 2002 (75%), and 2003 (83%)

Graduation Rates

OCtech benchmark #3 – The number of graduates will average 25% of the average annual fall enrollment for the program.

- Over the past three years, graduation rates have been: 2001-2002 (17%), 2002-2003 (17%), and 2003-2004 (18%).

Internal Measures of Success

Direct measures of soft skills and academic/program foundation skills:

- ACT Work Keys: Students will score a 3 or better on all areas of Work Keys.
- 90% of Capstone course students will achieve a grade of C or better.

Indirect measures of program success

- Maintain or exceed an 80% or better level of job placement.
- Re institute an Employer Satisfaction Survey to be implemented at the end of the Spring semester 2005.
- Improve retention over the FY03-04 Benchmark.
- Incorporate 100% of validated DACUM competencies into Automotive course outlines with demonstrated student performances.

Review Process and Use of Results:

Automotive Technology is a competency-driven curriculum. Its competencies are determined through qualified DACUM panels and are validated by industry professionals and the curriculum's own advisory committee. DACUMS are usually conducted every four years to ensure currency with the last DACUM occurring June 2002. In between each DACUM the program faculty performs the following internal processes yearly as part of the strategic planning and review process.

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- Ensure that program outcomes are appropriate and current.
- Ensure that program outcomes are addressed in the exit competencies of at least one required course.
- Ensure that within those required courses that students demonstrate the desired program outcome either through written or performance-based tests and/or graded assignment.
- Ensure that equipment inventory, facilities, and budget support program outcomes and the strategic plan.
- Ensure that successful completion of prerequisite courses is a satisfactory predictor of student success in subsequent courses.
- Monitor student performances in the capstone course against DACUM competencies.
- Review grade distribution and failure rates; student evaluations; job placement results; employer satisfaction survey; enrollment statistics; retention rates, and graduation rates.
- Ensure that the College Library can assure access to appropriate and current research materials.
- Provide feedback to the general education faculty on observed general education competencies and make recommendations as needed.
- Make a report to the advisory committee on assessment findings and solicit feedback.
- Work with Division Dean and the Curriculum Committee to revise syllabi and/or course/department offerings as needed.
- Conduct program self study as required by accrediting agencies.

What action(s) did the Program take this past academic year that improved and expanded student-learning outcomes?

Changes have been made within the Automotive Technology program to improve student success based on recommendations from our advisory committee, instructors, and DACUM panel. The DACUM panel consists of members of local industry who would be in the positions to hire our graduates or hold the same types of jobs as our graduates. The Panel meets separately from the Advisory Committee to discuss the competency requirements of the program and make recommendations for changes.

Automotive Technology Actions

Benchmark #1 Plan of Action: The AUT program instructors have begun the process of incorporating an internet component to the automotive learning environment called Todaysclass. It is a series of self paced modules that the student reads and then takes the end of module test and the end of section exam. It is used to reinforce the core knowledge that the student must have. In the long run this should improve the quality of our incoming students. We are using it to give our students more exposure to on line learning.

Benchmark #3 Plan of Action: Students in the AUT program have typically had to enroll in developmental courses before being able to take college level general education courses as part of their associate degree. This may inhibit a students progression through the program and delay graduation. Additional support mechanisms will be put in place to assist students in their progression through the AUT program.