

**Information and Engineering Technology Division
Automotive Department ATEP Program**

Course Syllabus

Automotive Service

AMT- 1105

2 Credits, 1 Class Hours, 3 Laboratory Hours

Instructor:

Office: TTCN /Charles F. Malin Automotive Center

Hours:

E-mail:

TEXTBOOKS:

Modern Automotive Technology , James E. Duffy

- **ISBN-10:** 1590701860
- **ISBN-13:** 978-1590701867

Automotive Technology Curriculum University of Missouri-Columbia

Course Description

This is an introductory course in shop operations, customer relations, flat rate manuals, safety, organizational design, pay structure, equipment, tools, and basic operational theories. Topics include the proper use of hand tools, measuring instruments, equipment; service procedures for lubrication, batteries, the cooling system and new car pre-delivery inspection (PDI). *Prerequisite 0850 or equivalent skills*

Learning Outcomes

At the completion of this course, the student will be able to

1. Prepare a new car for customer receipt. Testing will involve preparation of an actual automobile.
2. Use a shop manual to explain specific procedures used in automobile repair. Identification of pertinent safety items will be required.
3. Visually identify automobile tools and explain their safe usage.
4. Drill and tap both standard and metric threads.

5. Flare tubing (single and double flares).

Performance Assessment

The student will be required to pass a series of on-the-car hands-on tasks set by the NATEF task lists (Standard 2). The student will conform to federal, state, and local regulations and manufactures specifications when handling, storing, and disposing of chemicals. The student must ensure proper ventilation for chemicals use, inspection of first aid supplies, and demonstrate proper usage of special safety equipment. Inspect fire extinguishers and determines their effectiveness. Locates regulatory information and manufacturer recalls. Extract information from Material Safety Data sheets pertaining to shop chemicals. Select and uses appropriate protective clothing and eye protection. Comply with relevant regulations and standards. Pass a written safety test with 100% accuracy. Pass a performance examination on equipment with 100% accuracy. Comply with safety procedures.

Grading Policy

Grading of class:		Letter grade conversions:
Assignment /Lab Sheets	10%	A (90-100)
Unit & Mid-Term Tests (4)	20%	B (80-89)
Hands-on Components	40%	C (70-79)
Final Test	30%	D (60-69)

Lab Sheets are based on hands-on performance tasks per the NATEF task list.

NOTE: If the AVERAGE TOWARD FINAL GRADE is 90 or above (+ - assignments and lab sheets) you do not have to take the FINAL TEST.

If you have to take the FINAL TEST, the AVERAGE TOWARD FINAL GRADE and FINAL TEST are averaged for the FINAL LETTER GRADE.

Laboratory Guidelines

- **Horseplay will not be tolerated**
- **When working under an automobile, you must use a creeper**
- **Use all hand or special tools properly**
- **Do not sit in an automobile unless you are making a check or test that requires you to**
- **Do not run the radio or change radio setting**
- **Do not move the seat unless necessary**
- **You must use fender covers when working under the hood**
- **Do not use any part of an automobile for a work bench**
- **Every automobile must have a work order on it**

- **Every automobile jacked up must have jack stands under it**
- **You must wear safety glasses when doing the following**

Turning a drum/rotor
Grinding
Re-facing a valve

Balance a wheel
Drilling holes
Use a blow gun safely

Supplemental material

All Computer Based Training CD's and Web Based Training are required to be completed for hands-on certification to be granted. Lab workbooks must be completed.

COURSE OUTLINE:

Week 1 – Safety

Practice shop safety, hand tool safety and proper equipment use.

Week 2 – Using Manuals

Properly use shop manuals and flat rate manual and other types of service related literature.

Week 3 – Precision Measuring

Properly use and care for different types of precision measuring tools and equipment.

Week 4 – PDI (Pre-Delivery Inspection)

Properly PDI a new vehicle

Week 5 – Cooling Systems

Describe cooling systems function, components, and location.
Diagnose and repair cooling systems problems.

Week 6 – Lubrication Systems

Describe the lubrication system and properly service it.

Week 7 – Batteries

Describe the operation of a battery and diagnose battery concerns.

Week 8 – Minor Service

Perform minor service repairs on the automobile (ex. Battery replacement, windshield wipers, burned out bulb, minor interior work.)

I ATTENDANCE/TARDINESS

“Class attendance and punctuality requirements are contracted between the faculty and the students, through specific expectations for attendance and punctuality and specific consequences that are outlined by individual faculty members in the printed syllabus for each course. Students are expected to attend classes regularly and on time and are responsible for giving explanations/rational for absences and lateness directly to the faculty member for each course in which they are enrolled. In cases where student absences are the result of emergency circumstances (e.g., death in the family, a student’s serious injury or incapacitating illness), for which students are unable to make immediate contact with faculty, the student may contact the Dean of Students Office for assistance in providing such immediate notification to faculty. However, the student remains responsible for verifying the emergency circumstances to faculty and for discussing arrangements with faculty for completion of course work requirements.

In accordance with Nashville State’s attendance policy, **any student who does not attend class or contact the instructor for two consecutive weeks will be dropped from the class with a WF.** This grade counts the same as an F for figuring Grade Point Averages (GPA). If there is some compelling reason for an extended absence, be sure to get in touch with each of your instructors as early as possible.

Attendance is kept for each class meeting. If you must be absent, you should notify your instructor before the class meeting if at all possible. **Students are expected to be on time for all class/lab meeting.**

II CHEATING/PLAGIARISM

Everyone is expected to do homework and other class assignments independently. Students may study with classmates and are encouraged to form study groups for the purpose of helping each other understand class material, but assignments that are submitted to the instructor should be the student’s own work. **Copying another student’s work is considered cheating. Allowing another student to copy your work is also considered cheating.** Any person cheating on class work, homework or a test will be penalized as follows:

First Offense- all students involved will receive a zero (0) on that assignment.

Second Offense- all students involved will receive an F in the course.

Copying computer files is also a form of cheating. If you are working on the same assignment as other students, then you would be wise not to leave copies of your files on the hard drive, they are not yours to copy and if you do copy them, you will be penalized as stated above.

Plagiarism (quoting material from someone else without referencing the source) is also

not acceptable. If you quote information **from any source** (including the internet), then you should always cite the source.

III CELLULAR PHONES/PAGERS

The use of cellular telephones and pagers in the classroom is **prohibited**. If there is some special need for a brief period of time, the instructor should be notified before the device is brought to class, and then the device should be set to vibrate. The student should sit close to the door, and quietly leave the room before answering the call. **Every effort should be made to cause minimal disruption in the class.** Students violating this policy will be asked not to return to the classroom.

IV INTERNET USAGE POLICY

Students using Nashville State's computing facilities are responsible for using them in an ethical, legal, efficient and effective manner consistent with the mission of the college.

V ADA

"Nashville State complies with the Americans with Disabilities Act. If you wish to request any special accommodations for any courses in which you are enrolled, contact the Student Disabilities Office. Such services must have proof of documentation that is not over three years old. Contact the Disabilities Coordinator at 353-3721."

VI Academic and Classroom Misconduct

"Nashville State has a zero tolerance policy for disruptive conduct in the classroom. Please consult your Student Handbook for more specific details. The instructor has primary responsibility for control over classroom behavior and maintenance of academic integrity. He/she can order temporary removal or exclusion from the classroom of any student engaged in disruptive conduct or conducts which violates the general rules and regulations of the College. Disruptive behavior in the classroom may be defined as, but not limited to, behavior that obstructs or disrupts the learning environment (e.g., offensive language, harassment of students and professors, repeated outbursts from a student which disrupt the flow of instruction or prevent concentration on the subject taught, failure to cooperate in maintaining classroom decorum, etc.) the continued use of any electronic or other noise or light emitting device which disrupts others (e.g. disturbing noises from beepers, cell phones, palm pilots, lap-top computers, games, etc.)."

