AUMT 1257 – Automotive Brake Systems Theory

Course Syllabus: Fall 2026

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

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Weekday	Office Hours
Monday	By Appointment Only
Tuesday	By Appointment Only
Wednesday	By Appointment Only
Thursday	By Appointment Only
Friday	By Appointment Only

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description:

Theory and principles related to the design, operation, and servicing of automotive braking systems. Includes disc and drum-type brakes, hydraulic systems, power assist components, anti-lock brake systems, and diagnosis and reconditioning procedures.

Student Learning Outcomes:

1. Explain the operation of disc and drum-type brakes
2. explain hydraulic system physical principles
3. describe the operation of power assist components
4. explain the operation and theory of anti-lock brake systems.

Evaluation/Grading Policy:

The breakdown of the course requirements is as follows:

%	Requirement
20%	Attendance & Professionalism
20%	Theory: Section and Chapter Quizes

20%	Lab Assignments
20%	Midterm Exam or Lab Practical
20%	Final Exam

Semester grades will be earned as follows

Percentage	Letter Grade
90% and above	A
80 %–89%	B
70 %–79%	C
60%–69 %	D
59.9% and below	F

Evaluation/Grading

A = 90%-100%

B= 80%-89%

C=70%-79%

D=60%-69%

F=0%-59%

If course is part of your major, you must successfully complete with a C or better.

Grading will be represented as a % of a 500pt system.

100 pts Attendance and Professionalism

100 pts Theory / Book work

100 pts Shop / Lab

100 pts Midterm Exam / Lab Practical

100 pts Final Exam **Attendance:**

Minimum contact hours for completion of this course are set by the WECM, any student whose attendance causes them to fall below this threshold will be automatically failed from the course. Discretion is allowed to the instructor and director to allow for make up time in the event of an approved emergency.

Attendance is taken at the beginning of each class period, students not present at the start of class who arrive within 10 minutes will be marked as tardy, 2 tardies will constitute 1 absence.

Any student who arrives to class and reports to the instructor after the 10 minute mark will be marked as

absent, ability to change to a tardy may be allowed by instructor discretion.

Any student who leaves class before the instructor dismisses class without prior permission from the instructor will be recorded as an early leave, 2 early leaves will constitute 1 absence.

Present and on time=100% for class period

Tardy=50% for class period
Early Leave=50% for class period

Absence=0% for class period **Professionalism:**

Professionalism will be evaluated on a weekly basis and may have points deducted for any facility rule violations, classroom rule violations, shop rule violations, being out of uniform, or any other disruptive or unprofessional behaviors.

Theory / Book work

Will be evaluated across readings from the text, quizzes, and subject mater tests

Any late work will be penalized or not accepted according to instructor discretion.

Cell Phone use / AI use is prohibited unless expressly permitted by the instructor.

Shop

Assessment of hands on skills, Lab validation exercises, and lab skill test.

Proper dress is required in shop including:

Closed toe shoes (preferably with protective toe caps).

Flip flops, sandals, crocs, and slides are not permitted.

Shop shirt

Long Pants

Long hair should be pulled back and secured

Safety glasses

Ear protection is strongly recommended.

Any student that is not in proper attire will not be permitted to complete work in the shop and will receive a grade of zero for any assignments that day.

Midterm Exam / Lab Practical

According to instructor choice,
Midterm Exam is a written comprehensive test over materials covered in the first half of the course.

Lab Practical is a hands on skill assessment designed to test mastery of skills taught in the course.

Final Exam

Will be a written comprehensive test over the materials taught in the course.

Required Instructional Materials:

Modern Automotive Technology 11th Edition

Publisher: Goodheart-Willox **ISBN Number:** 9798891189904

Optional Instructional Materials:

None

Minimum Technology Requirements:

Access to Computer

Required Computer Literacy Skills:

Ability to navigate blackboard to complete online coursework

Course Structure and Overview:

20% In person lecture, 20% Online bookwork, and 60% hands on instruction

Communications:

NTCC preferred communication is NTCC email

Institutional/Course Policy:

Automotive Program Rules & Policies

1. Facility Rules (General Program & Campus Expectations) Safety & Conduct

- Follow all instructor-specific safety policies in addition to these rules.
- Horseplay (physical or verbal) is strictly prohibited.
- Report all injuries immediately to the instructor.
- Treat all individuals with respect and professionalism.
- Profanity is not allowed.
- No aggressive physical contact. **Access & Use**
- Students are not permitted to use instructor tools at any time without prior authorization.
- Students may not enter instructor offices unless accompanied by faculty (no exceptions).

Professional Expectations

- Maintain regular attendance.
- Demonstrate responsibility, honesty, and initiative.
- Practice time management and cost awareness.
- Display professionalism in behavior and appearance.
- Follow all institutional policies and procedures.

Classroom Rules Behavior & Participation

- Raise your hand and wait to be recognized before speaking.
- If issues arise, request to speak with the instructor privately.

- Students must complete their own work—no cheating.

Dress & Personal Conduct

- Sunglasses are not permitted in class.
- Proper attire must be worn at all times (see dress code).
- No food or drinks allowed in the classroom, lab, or shop.

Electronics & Disruptions

- Phones and electronic devices must be turned off during class and lab.
- Disruptions caused by devices may result in loss of credit for the day.

General Conduct Principles

- Respect the learning environment.
- Follow instructor directions at all times.

Shop Rules (Safety, Equipment, and Work Practices) Personal Safety

- Always wear safety glasses in shop areas.
- Do not wear jewelry (rings, watches, necklaces, etc.).
- Tie back long hair.
- Wear proper work clothing.
- Use proper lifting techniques.

Equipment & Tool Use

- Inspect tools before use; do not use damaged tools.
- Use the correct tool for the job.
- Follow proper procedures when using all machinery (presses, hoists, etc.).
- Never use compressed air to clean clothing or spin bearings.

Vehicle Safety

- Always support vehicles with jack stands—never rely solely on a jack.
- Ensure jacks are properly centered before lifting.
- Use exhaust ventilation when running vehicles indoors.

Shop Awareness

Know the location of:

- Fire extinguishers
- Emergency exits
- Eyewash stations
- First aid kits
- Fire blankets

Shop Housekeeping Rules

- Clean spills immediately.
- Return all tools to proper storage after use.
- Clean tools before returning them.
- Store oily rags in approved containers.
- Sweep work areas daily.
- Keep benches clean and organized.
- Do not leave tools or creepers on the floor unless in use.
- Empty shop trash as needed.
- Report broken tools immediately.

Vehicle Handling Rules

- Treat all vehicles with care and respect.
- Do not sit on or in vehicles unless required for work.
- Push vehicles from the rear only.
- Use:
  - Floor mats
  - Seat covers
  - Fender covers
- Keep hands, clothing, and shoes clean when entering vehicles.
- Clean all grease or fingerprints after work is completed.
- Do not operate radios or tamper with vehicles in any way.
- Never write on vehicles.
- Do not touch vehicles without authorization.

Live Work Policy

- All live work must be approved by the instructor and director.
- Work must have educational value and align with course objectives.
- Students must complete prerequisite tasks before performing live work.
- A signed work request must be completed and approved before work begins.
- A copy of the work order must remain in the vehicle while in the shop.
- Students/customers are responsible for parts and materials.
- Students must prepare a bill of materials for instructor approval.
- All vehicles and property are left at the owner’s risk.

Code of Ethics

Students are expected to:

- Always show respect and professionalism.
- Demonstrate:
  - Honesty
  - Reliability
  - Diligence
  - Enthusiasm
  - Cooperation
- Take responsibility for actions and decisions.
- Maintain a positive attitude and willingness to learn.
- Display pride in their work and environment.

Driver's License

Automotive students need to have a valid driver's license. Without this, students cannot drive vehicles legally to complete the required tasks. In the case the student does not currently hold a valid license, they may not drive any vehicles in association with Shelby classes. Students must notify their instructor in the case of any license issues.

Tool Requirement Statement Carroll Shelby Automotive Institute

The Carroll Shelby Automotive Institute is committed to providing students with a professional, real-world training environment that reflects industry standards and expectations. As part of this commitment, students are expected to take an active role in preparing for their careers in the automotive field.

Students enrolled in automotive courses are required to supply their own **basic hand tools**. Ownership and familiarity with personal tools is an essential component of professional development and mirrors the expectations of the automotive industry.

The Institute will provide **specialized tools and equipment** required for specific training exercises and advanced service procedures. These tools are intended to supplement student-owned toolsets and support instruction across various systems and technologies.
A **recommended tool list** is available upon request to assist students in purchasing appropriate tools that meet course and industry requirements.

By maintaining personal tools and using provided equipment responsibly, students will develop the habits, accountability, and professionalism necessary for success in the automotive industry.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements:

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (http://www.ntcc.edu/) for instructions about continuing courses remotely, Blackboard for each class for course-

specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

Statement Regarding the Use of Artificial Intelligence (AI) Technology:

Employees and students shall be permitted to explore artificial intelligence (AI) and implement its use in and out of the classroom in accordance with policy and administrative regulations. The use of AI shall only be as a support tool to enhance student outcomes or as necessary to engage in research and shall never take the place of faculty, staff, and student decision-making. Any use of AI must comply with law, policy, and administrative regulations relating to student and employee privacy and data security. A student shall only use AI tools with faculty permission and shall be expected to produce original work and properly credit sources, including AI tools used in creating the work.

Example:
APA (7th edition)
OpenAI. (2026). ChatGPT (March 25 version) [Large language model]. https://chat.openai.com/
MLA (9th edition)
OpenAI. ChatGPT. 25 Mar. 2026, https://chat.openai.com/.

Employees or students who use AI tools to deceptively harm, bully, or harass others shall be disciplined in accordance with policy. [See DH, DIA series, FFD series, FFE, FLB, and the FM series] AI Use by Employees and Students. Northeast Texas Community College 225500 TECHNOLOGY RESOURCES CRB ARTIFICIAL INTELLIGENCE (LOCAL) DATE ISSUED: 12/8/2025 1 of 1 UPDATE 50 CRB(LOCAL)-AJC Adopted: 12/16/2025

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodation for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodation as required to afford equal educational opportunity. It is the student's responsibility to request accommodation. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In

compliance with FERPA, information classified as “directory information” may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student’s name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Schedule:

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