



# Atlantic Technical College

## Automotive Service Technology

### Program Syllabus

### 2022-2023



**Instructor Name:** Dan Bond, Carl Rowe and Andy Smith  
**Department Name:** Automotive  
**Office/Classroom Location:** Bldg. 17, Room 298 & Portable 15  
**Phone Number:** 754 321-5196 Bond & Smith  
754-321-5100 Rowe  
**Email Address:** daniel.bond@browardschools.com  
andy.smith@browardschools.com  
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**Instructor Office Hours:**  
**M-F:** 1:50 PM - 3:50 PM  
(By appointment only)

**Student Hours:**

**Monday – Friday**  
**7:05 AM – 1:50 PM**

**Lunch**  
**10:05 AM – 10:35 AM**

**Break**  
**10:35 AM – 10:50 AM**

*NOTE: All students are expected to be present during their entire scheduled class time(s). All classroom breaks will occur on an “as needed” basis. The wall clock in the classroom will serve as the official time.*

**Program Name:** Automotive Service Technology  
**Career Cluster:** Transportation, Distribution and Logistics

OCP	Course Name / Title	Hours/Days
A	AER0014/Automotive Service Assistor	300hr 50
B	AER0100 /Engine Repair Technician	150hr 25
C	AER0257/Automatic Transmission and Transaxle Technician	150hr 25
D	AER0274/Manual Drivetrain and Axle Technician	150hr 25
E	AER0453/Automotive Suspension and Steering Technician	150hr 25
F	AER0418/Automotive Brake System Technician	150hr 25
G	AER0360/Automotive Electrical/Electronic System Technician	300hr 50
H	AER0172/ Automotive Heating and Air Conditioning Technician	150hr 25
I	AER0503/Automotive Engine Performance Technician	<u>300hr 50</u>
		<b>1800 hours/ 300 Days</b>

**Technical College Policy/Adult Student Attendance:**

- A student must be withdrawn after being absent for six (6) consecutive days.
- Two (2) additional absences may be allowed under certain circumstance with appropriate documentation.
- Please refer to the Broward Technical College Student Handbook for postsecondary students: <http://www.atlanticttechnicalcollege.edu/atc-student-handbook/>

**Required Book(s) and/or Online Access**

Available for purchase at the ATC Bookstore:

- Halderman, James, Automotive Technology 6<sup>th</sup> Edition, Pearson 2020.  
ISBN# **9780135257272**
- Motor Age A-1 to A-8 Training Books

**Required Materials/Supplies**

Purchased from ATC Bookstore:

- Unex Safety Glasses
- Notebooks
- Writing Utensils (pen and pencil)
- Pocket Flashlight

**Grading System:**

A 90 - 100%  
B 80 - 89%  
C 70 - 79%  
D 60 - 69%  
F 0 - 59%  
I Incomplete

**Additional Program Specific Grading Information:**

Lab	40%
Module Tests	20%
Textbook Assignments	10%
Chapter Quiz	10%
Electude Online Course	15%
Daily Grade	5%

**Lab Work:**

Each course requires that the student must have the following percentage of lab work completed:

- P1- 95%
- P2- 80%
- P3- 50%

**Online Course Grading Policy:**

- Electude courses must have a 70% or higher to complete the course.
- Quizzes and tests will be graded on first attempts only. (NO Resets)
- Failure to complete a course before the due date will result in a 50% deduction for that course.

**View Your Grades:**

**Grades can be viewed online by following the directions below:**

1. Go to <https://browardfocus.com> (access FOCUS using Chrome, Firefox or Safari)
2. Student ID which is on your student schedule.
3. Passcode: Student's date of birth formatted as PMM/DD/YYYY.  
*Two digits for the month, two digits for the day and Four digits for the year.*

**Classroom/ Lab Rules:**

1. Must complete safety online course and pass the safety test with a 90% or better before working in shop.
2. Must wear safety glasses at all times when in shop.
3. Do not use equipment if you have not been trained to use it correctly.
4. Must have proper shop clothing to work (no flip flops, loose fitting clothing, etc.)

5. Clean any oil spills immediately.
6. Do not distract anyone who is working on a project.
7. No running or throwing things
8. All vehicles in the shop must have a repair order before work can begin.
9. The keys of any vehicle in the shop will be given to the instructor and not returned until the vehicle has been cleared by the instructor.
10. Be aware of what is going on around you at all times.
11. All electronic devices must be silent and out of sight during instructional time. This includes cell phones, earbuds, smartwatches, headphones, mp3 players, etc. The school and/or teacher are not responsible for lost or stolen devices/personal belongings of any kind.

**Please Note:** *Working in the shop is a privilege that can be revoked if these rules are not followed.*

#### **ASE Industry Credentials:**

A1 Engine Repair  
 A2 Automatic Transmission & Transaxles  
 A3 Manual Transmission & Drivetrain  
 A4 Brakes  
 A5 Suspension & Steering  
 A6 Electrical  
 A7 Heating & Air Conditioning  
 A8 Engine Performance  
 ASE Certification: Students are eligible to take all eight (8) ASE tests (A1 - A8).  
 Exam Fee is \$47 per Computer - based test.  
 Registration Fee is \$34 per registration.  
 Students may take more than one exam at a time.  
 ASE tests are given off-site.  
 Maximum cost per Computer - based testing is \$81.

#### **Outstanding Student Recognition Information:**

A gold seal will be applied to a Program Completion Certificate or an Applied Technology Diploma if the student has earned a 3.5 GPA or higher in their Career and Technical Education (CTE) classes.

**Program Name:** Automotive Service Technology

**Course Number:** AER0014

**Course Name:** Automotive Services Assistor

**Occupational Completion Point:** A

**Intended Outcomes:**

1.0 - Proficiently explain and apply required shop and personal safety tasks relating to the automotive industry.

2.0 - Explain and apply required tasks associated with the proper use and handling of tools and equipment relating to the automotive industry.

3.0 - Demonstrate proficiency in preparing vehicle for routine pre/post maintenance and customer services.

**Course Number:** AER0110

**Course Name:** Engine Repair Technician

**Occupational Completion Point:** B

**Intended Outcome:**

4.0 - Explain and apply proficiently the **diagnosis, service and repair of engines, cylinder heads, valve train, engine block, lubrication and cooling systems.**

**Course Number:** AER0257

**Course Name:** Automatic Transmission and Transaxle Technician

**Occupational Completion Point:** C

**Intended Outcome:**

5.0 - Explain and apply proficiently the diagnosis, service, repair and overhaul of automatic transmissions.

**Course Number:** AER0274

**Course Name:** Manual Drivetrain and Axle Technician

**Occupational Completion Point:** D

**Intended Outcome:**

6.0 - Explain and apply proficiently the diagnosis, service and repair of manual drivetrains, clutches, transmissions/transaxles, drive and half-shaft universals, constant velocity joints, rear axle differential assembly, limited slip, four-wheel drive and all-wheel drive.

**Course Number:** AER0453

**Course Name:** Automotive Suspension and Steering Technician

**Occupational Completion Point:** E

**Intended Outcome:**

7.0 - Explain and apply proficiently the diagnosis, service and repair of front and rear suspensions systems, wheel alignment, and wheels and tires.

**Course Number:** AER0418  
**Course Name:** Automotive Brake System Technician  
**Occupational Completion Point:** F

**Intended Outcome:**

8.0 - Explain and apply proficiently the diagnosis, service and repair of drum\disc brake, hydraulics, power assist units, electronic brakes, traction control, stability control systems and miscellaneous (wheel bearings, parking brake, electrical, etc.) systems.

**Course Number:** AER0360  
**Course Name:** Automotive Electrical/Electronic System Technician  
**Occupational Completion Point:** G

**Intended Outcome:**

9.0- Explain and apply proficiently the diagnosis, service and repair of electrical/electronic system components, battery, starting, charging, lighting, gauges, warning devices, driver information, horn, wiper/washer and accessory systems.

**Course Number:** AER0172  
**Course Name:** Automotive Heating and Air Conditioning Technician  
**Occupational Completion Point:** H

**Intended Outcome:**

10.0- Explain and apply proficiently the diagnosis, service and repair of heating and air conditioning, refrigeration, compressors, compressor clutches, evaporators, receiver driers, accumulators, condensers, heating and engine cooling, related control systems, refrigerant recovery, and recycling and handling.

**Course Number:** AER0503  
**Course Name:** Automotive Engine Performance Technician  
**Occupational Completion Point:** I

**Intended Outcome:**

11.0- Explain and apply proficiently the diagnosis, service and repair of engines, ignition, fuel, air induction, exhaust, computer engine and emission control systems.

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