Automotive Technology 2 Syllabus

Instructor
Prof. A. Campos
A.S. Automotive Technology, ASE Certified Master
Owner of Cosmic Motorsports LLC

Contact Information

- Email: AlfonsoCampos@vistausd.org
- Shop Phone: 726-5611 ext. 71755
- Website: CosmicMotorsports.com

Teaching Philosophy

My classroom is built on the belief that today's students need more than a standard education to succeed in a fast-changing world. I bring more than 8 years of automotive experience to this course, both as a technician and as a business owner, and I believe that real-world success begins with strong learning in the classroom. I am passionate about education and committed to reaching students through multiple learning styles so every learner has the opportunity to grow and succeed.

I strive to create a classroom that feels like a home base, where every student feels supported, respected, and part of a community. I want students to see that automotive technology is more than turning a wrench. It is a field that requires problem-solving, communication, creativity, responsibility, and pride in workmanship. Through guided lessons, hands-on projects, group work, and connections to everyday life, I will help students understand how automotive skills apply beyond the shop and into the world they live in every day.

My goal is to bridge the gap between education and the trades by preparing students not only with technical knowledge, but with confidence, motivation, and the skills to take on life after school. In a world that changes quickly, I want students to leave this program ready to meet challenges, pursue opportunities, and build a future they can be proud of. That is a legacy worth striving for.

Course Description

Auto Technician 2 is a capstone course in a sequence of courses, preparing students for careers or post-secondary education in the automotive industry and engineering. Students will learn through hands-on lab work and inquiry-based learning. The course focuses on the integration of science and technology as they apply to mechanical, electrical, chemical, and computer systems. Students will explore automotive subsystems, diagnose and repair systems, analyze automotive technology theories, and consider the future direction of the automobile industry. Students will practice shop safety, demonstrate management skills, explore careers,

and use technology, research, expository writing, and reflective writing. This course fulfills one year of the academic elective requirement for high school graduation and one year of the CSU/UC “G” academic elective requirement.

Course Objectives

By the end of this course, students will be able to:

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- Practice personal and occupational safety and protect the environment
- Use tools, equipment, and work processes safely and correctly
- Apply basic business practices in automotive settings
- Identify and explain major automotive systems and subsystems
- Use measurement tools and math skills for automotive tasks
- Describe how internal and external combustion engines work
- Perform maintenance, service, diagnosis, and repair procedures
- Explain the function of emission, evaporative, electrical, and alternative fuel systems
- Use informational text, technical resources, and repair documents to solve problems
- Demonstrate college and career readiness skills in the automotive field

Required Materials

- Closed-toed shoes
- Shop-appropriate attire
- Personal protective equipment, if the class-provided PPE does not fit or is not suitable
- Completed shop safety walk
- Signed shop contract submitted in Canvas by both the student and a parent or guardian
- Internet access on a desktop or laptop computer
- Ability to scan and save job sheets as PDF files
- Flash drive or thumb drive recommended
- District-adopted textbook

Grading Policy

Category	Weight

Chapter review questions / ASE questions	10%
Projects	30%
Labs	20%
Participation	30%
Final exam	10%

Final grades are based on total points earned using this scale:

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

Assignments are due on the posted date. No assignments will be accepted after the last day of the regular class. The instructor may add, change, or delete points during the semester.

Class Expectations

- Arrive on time and stay for the full class period
- Leaving early or arriving late will affect your attendance grade
- Participate fully in labs, job sheets, and group work
- Follow all safety rules and shop procedures
- Wear proper clothing and required safety gear
- Do not copy another student's work
- Complete job sheets only on the day they are assigned in class
- Keep up with weekly Canvas modules and quiz deadlines
- Communicate with the instructor early if attendance or learning challenges come up
- Keep cellphones silent during lectures and labs unless being used for class work with permission

Course Outline

Unit	Topic	Key Focus
1	Introduction and Safety	Safe work habits, emergency procedures, careers, certifications, and environmental responsibility.

2	Engine Design	Engine theory, combustion, maintenance, diagnosis, and supporting subsystems
3	Smog: Cause and Effect	Emissions, air quality, combustion chemistry, and environmental impact
4	Lubrication Systems	EVAP diagnosis, fault codes, schematics, testing, and leak checks
5	Automotive Electrical Systems	Circuits, electrical laws, troubleshooting, batteries, starting, charging, and lighting
6	Alternatives to the Internal Combustion Engine	Electric, hybrid, flex-fuel, and fuel-cell systems; environmental effects

Work-Based Learning Opportunities

Work-based learning gives students a chance to apply classroom learning in real-world settings. It may also help students log time toward ASE certifications. Please see the instructor in person for more information.

Teaching Schedule: Auto Technician 2 | 2026–2027 School-Year Calendar

First instructional week: August 17, 2026
Last instructional day: June 3, 2027

Legend

- **WRENCH WEEK** — A-week; scheduled hands-on instruction, demonstrations, labs, and vehicle work
- **SCIENCE WEEK** — B-week; theory, certification modules, vocabulary, and asynchronous assignments
- **NO SCHOOL** — Holiday, break, or nonstudent day

August 2026

Week	Dates	Classification
Orientation	Aug. 12–14	**ORIENTATION**
1	Aug. 17–21	**SAFETY WEEK**

2	Aug. 24–28	**SAFETY WEEK**
3	Aug. 31–Sept. 4	**WRENCH WEEK**

September 2026

Week	Dates	Classification
4	Sept. 7–11	**SCIENCE WEEK**
5	Sept. 14–18	**WRENCH WEEK**
6	Sept. 21–25	**SCIENCE WEEK**
7	Sept. 28–Oct. 2	**WRENCH WEEK**

October 2026

Week	Dates	Classification
8	Oct. 5–9	**SCIENCE WEEK**
9	Oct. 12–16	**WRENCH WEEK**
10	Oct. 19–23	**SCIENCE WEEK**
11	Oct. 26–30	**WRENCH WEEK**

November 2026

Week	Dates	Classification
12	Nov. 2–6	**SCIENCE WEEK**
13	Nov. 9–13	**NO SCHOOL / REDUCED WEEK**
14	Nov. 16–20	**SCIENCE WEEK**
15	Nov. 23–27	**NO SCHOOL — THANKSGIVING BREAK**
—	Nov. 11	**NO SCHOOL — VETERANS DAY**

December 2026

Week	Dates	Classification
16	Nov. 30–Dec. 4	**WRENCH WEEK**
17	Dec. 7–11	**SCIENCE WEEK**
18	Dec. 14–18	**WRENCH WEEK**
19	Dec. 21–25	**NO SCHOOL — WINTER BREAK**
20	Dec. 28–Jan. 1	**NO SCHOOL — WINTER BREAK**

January 2027

Week	Dates	Classification
21	Jan. 4–8	**SCIENCE WEEK / REDUCED WEEK**
22	Jan. 11–15	**WRENCH WEEK**
23	Jan. 18–22	**SCIENCE WEEK / REDUCED WEEK**
24	Jan. 25–29	**WRENCH WEEK**
—	Jan. 4–5	**NO SCHOOL — PD DAYS**
—	Jan. 18	**NO SCHOOL — MLK JR. DAY**

February 2027

Week	Dates	Classification
25	Feb. 1–5	**SCIENCE WEEK**
26	Feb. 8–12	**WRENCH WEEK**
27	Feb. 15–19	**NO SCHOOL — PRESIDENTS WEEK**
28	Feb. 22–26	**SCIENCE WEEK**

March 2027

Week	Dates	Classification
29	Mar. 1–5	**WRENCH WEEK**
30	Mar. 8–12	**SCIENCE WEEK**
31	Mar. 15–19	**WRENCH WEEK**
32	Mar. 22–26	**SCIENCE WEEK / REDUCED WEEK**
33	Mar. 29–Apr. 2	**NO SCHOOL — SPRING BREAK**
—	Mar. 26	**NO SCHOOL — SPRING BREAK BEGINS**

April 2027

Week	Dates	Classification
34	Apr. 5–9	**WRENCH WEEK**
35	Apr. 12–16	**SCIENCE WEEK**
36	Apr. 19–23	**WRENCH WEEK**
37	Apr. 26–30	**SCIENCE WEEK**

May 2027

Week	Dates	Classification
38	May 3–7	**WRENCH WEEK**
39	May 10–14	**SCIENCE WEEK**
40	May 17–21	**WRENCH WEEK**
41	May 24–28	**SCIENCE WEEK**
42	May 31–June 3	**REDUCED FINAL WEEK**
—	May 31	**NO SCHOOL — MEMORIAL DAY**

June 2027

Week	Dates	Classification
42	June 1–3	**FINAL INSTRUCTIONAL DAYS**
—	June 3	**SCHOOL YEAR ENDS**

Calendar Note

Dates and instructional meeting patterns are subject to the official school calendar. The teacher may adjust labs, certification modules, projects, and assessments based on equipment, safety, student progress, and school events.