





Advanced Automotive Technology

Purpose

- This proposal reflects curricular revisions to extend the Advanced Automotive Technology course from a one-hour course to a two-hour course.
- Advanced Automotive Technology is the second course in the sequence leading to (Automotive Service Excellence) ASE certification in the Career and Technical Education (CTE) Automotive Technology Pathway.
- The Automotive Technology Pathway currently serves 807 students.

Rationale

The District is moving to a Pathway model in all high schools to be implemented for the freshman class of 2021-2022. A valid Pathway includes:

- A sequence of courses wherein a student will complete a 1 period course in the sophomore year, a 2 period course experience in the junior year, and a 2 period course experience in the senior year (1-2-2 Model).
- Meets the state's minimum requirements for course offerings by program Classification of Instructional Program (CIP) sequence.
- Opportunity for early college credit, industry recognized credentials, and/or post-secondary education.
- Work-based learning experiences.

The Process

- Began in January 2019
- Team consisted of ASE certified teachers, Educational Pathways Teacher Leader and Career and Technical Education Coordinator.
- Total of 6 meetings which incorporated Understanding by Design, Standards-Based Learning and Assessment and the curriculum writing process.
 - Developed Unit Plans utilizing UbD framework
 - Designed standards-based rubrics
 - Determined common assessments aligned to desired outcomes of the course and skills for ASE certification.

Proposal

- **Committee recommends the revised Advanced Automotive Technology course (4 credits) replace Advanced Automotive Technology (2 credits) in the CTE Automotive Technology pathway sequence.**
- **The additional classroom time and application of skills will also benefit students as they qualify to take the Maintenance and Light Repair Certification exam at the end of the pathway.**
- **By extending both theory and hands-on instructional time, students completing this pathway are positioned for success for any number of post-secondary choices including college and career (eg., Specialized Technician, Mechanical and Electrical Engineering, Business).**

Recommended Resources

Textbook

[Automotive Technology: Principles, Diagnosis, and Service, 6th Edition](#) Halderman, 2020

The 6th Edition of *Automotive Technology: Principles, Diagnosis, and Service* has been updated to include the latest technology and automotive systems information, and is written to current ASE tasks and standards.

Automotive Technology, 6th Edition, will be available in spring 2020 including VitalSource eText and online teacher resources.

Additional Resources

[All Data Repair Online Database](#)

U-46 Automotive programs work on a myriad of different vehicle makes, models, and types.

All Data Repair Database subscription offers students efficient access to repair and maintenance procedures as well as diagnostic information. The site offers 300,000+ interactive color wiring diagrams in addition to OEM (Original Equipment Manufacturer) diagrams, as well as probably cause and verified repairs.

Item	Quantity	Unit Cost		Total Cost
Textbooks and Digital Licenses	150 6 class sets of 25	\$179.45	Automotive Technology: Principles, Diagnosis and Service: Hardcover Text and 900 1 year eText Licenses	\$26,917.50 (449.58/year)
Textbooks and Digital Licenses	550 (sold in bundle of 6)	\$86.47	Automotive Technology: Principles, Diagnosis and Service: Online License: 3,300 1 year licenses	\$47,558.50 (\$7,926/year)
Professional Development	7 teachers	\$1,500.00*	*Estimated yearly cost	\$10,500.00
ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
Supplementary Materials	3 (1 per ASE Site)	\$2,633.00	All Data Repair Online Database (expires 09/2022)	\$7,899.00 (2,663/site/year)
Total				\$95,875.00

SY 2020-2021	Textbooks and Digital Licenses	\$150 (6 class sets of 25)	\$179.45	Automotive Technology: Principles, Diagnosis and Service: Hardcover Text and 900 1 year eText Licenses	\$26,917.50
	Textbooks and Digital Licenses	\$550 (sold in bundle of 6)	\$86.47	Automotive Technology: Principles, Diagnosis and Service: Online License 3,300 1 year licenses	\$47,558.50
	Professional Development	7 teachers	\$1,500.00*	*Estimated yearly cost	\$10,500.00
	ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
					\$87,976.00
SY 2021-2022	Professional Development	7 teachers	\$1,500.00*	*Estimated yearly cost	\$10,500.00
	ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
					\$13,500.00
SY 2022-2023	Professional Development	7 teachers	\$1,500.00*	*Estimated yearly cost	\$10,500.00
	ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
	Supplementary Materials	3 (1 per ASE Site)	\$2,633.00	All Data Repair Online Database (expires 09/2022)	\$7,899.00
					\$21,399.00
SY 2023-2024	Professional Development	7 teachers	\$1,500.00*	*Estimated yearly cost	\$10,500.00
	ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
					\$13,500.00

SY 2024-2025	Professional Development	7 teachers	\$1,500.00*	*Estimated yearly cost	\$10,500.00
	ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
					\$13,500.00
SY 2025-2026	Professional Development	7 teachers	1\$,500.00*	*Estimated yearly cost	\$10,500.00
	ASE MLR Exam Fee	75	\$40.00	Exam fee for ASE Maintenance and Light Repair Certification	\$3,000.00
					\$13,500.00

Total Investment: \$163,375.00

Average Cost per student per year: \$34.03

Professional Development

- **Automotive instructors in ASE accredited programs are required to complete 20 hours of Professional Development dedicated to Automotive Technology and Instruction annually.**
 - **Teachers are able to apply for these costs to be covered by Career and Technical Education Grant Funds.**
- **It is recommended that all CTE teachers complete professional development to build their capacity in UbD, SBLA and Instructional Best Practice.**

Plans for the Evaluation of Change

This course is one component of an existing full Pathway; further plans to review and revise the other two courses of the pathway which will:

- **Align all learning standards and assessments to SBLA practices; and,**
- **Include Social Emotional Learning Standards and Essential Employability Competencies throughout the entire pathway sequence.**

A group of young children, likely in a classroom, are shown with their hands raised, indicating they want to ask a question or answer. The children are diverse in appearance and are wearing various clothing, including red polo shirts and blue shirts. Some are wearing glasses. The background shows a typical classroom setting with chairs and a desk.

Questions? / ¿Preguntas?