



# Career & Technology Automotive Technology I

Unit Name					
Academic Alignment with TEKS	CTE TEKS	Content/Vocabulary	Guiding Questions	Activities	Resources and Web links
ELA 11th-1A, B, C IPC 2D M	TEKS 125.5  <b>C</b> -(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:		A. What is professional dress? B. Define ethics.	Prepare a resume	Ayes.org
ELA-7P IPC 2D M	TEKS 125.5  (A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of automotive services;		A. What are the different career opportunities in the Automotive field? B. What level of education is needed for these careers?	Research pay scale for different fields in Automotive	
ELA 11 <sup>th</sup> -7A IPC 2A M	TEKS 125.5  (B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;		A. Name 3 characteristics of a good leader? B. What is your career plan?	Assign work groups with Shop foreman and Service Manager over class	
ELA 11th-7E 7H IPC 1A,2D M	TEKS 125.5  (C) identify employers' expectations and appropriate work habits;		A. What does an employer expect from an Intern? B. Name 5 appropriate work habits		Ayes.org
ELA 7P IPC 1A,2D M1A, 1C	TEKS 125.5  (D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations;		A. What are 2 top Information systems for Automotive? B. Why do you need keyboarding skills for Auto Tech? C. At what grade level do you think most automotive manuals are written?	Computer lab training on Alldata or Demonstration	
ELA 6A,7A IPC 2D,2A M	TEKS 125.5  <b>2</b> -(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and		A. Write a composition discussing what your career plans are for school, college, and your career. You will present this to the class.	Act out irate customer issue with groups.	



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	customers		<ul style="list-style-type: none"> <li>B. How is the best method to deal with customers?</li> <li>C. How do you deal with and irate customer</li> </ul>		
ELA 7P,74 IPC2A M5A, 5B	TEKS 125.5  (B) successfully complete repair orders and related paperwork;		<ul style="list-style-type: none"> <li>A. Do you need a work order on each vehicle entering shop?</li> <li>B. How much markup on parts ordered in?</li> </ul>	Work order assignments	
ELA 7P,7A IPC 2B,3A M1A,1C	TEKS125.5  (C) estimate parts and labor costs on repair orders; and		<ul style="list-style-type: none"> <li>A. Research the shops in surrounding areas and find and average labor rate for the area.</li> <li>B. Call for parts pricing and figure customer price with markup.</li> <li>C. Look up specified procedure and find warranty and customer pay hours for job.</li> </ul>	Estimate on vehicles in shop	
ELA 7H, 7I IPC MIC	TEKS125.5  (D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations;		<ul style="list-style-type: none"> <li>A. Why is it necessary to be computer literate in the automotive field?</li> <li>B. Does it help to know you surrounding distributors?</li> </ul>	Look up certain vehicle procedures.	
ELA 7A,1A,1B IPC M	TEKS 125.5  <b>3-</b> The student knows the concepts and skills that form the core of knowledge of automotive services. The student is expected to:		A. Name some on the skill areas needed for Auto Tech.		Ayes.org



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ELA 7H, 7I IPC 2A M	TEKS 125.5  (A) describe the function of the major components of powered vehicles; and		A. What are the major components in today's automobile?  B. What are their functions	Shop Demonstration	
ELA 7I, 8B IPC 3A M5A	TEKS 125.5  (B) describe the function of the automotive chassis components.		A. What are the three basic types of chassis systems?  B. Can you name 7 component of the major chassis system?	Shop Demonstration including alignment computer.	
ELA 7H, 7I 8B IPC 2A, 2B,2A M5A,5B	TEKS 125.5  4- The student knows the functions and applications of the tools, equipment, technologies, and materials used in automotive services. The student is expected to:		A. Can you name 5 pieces of equipment in the shop area relating to the basic automobile?	Tour of tool area and speech from attendant.	
ELA 6E, 5A,5B IPC 2A,2B,7A M	TEKS 125.5  (A) safely use hand and power tools and equipment commonly employed in the maintenance and repair of vehicles;		A. Can you list 10 safety rules that are that apply in all shops?  B. What type of sockets are used on air tools?  C. Is it legal to break off the third terminal (round) of an extension cord?	Shop Tour	
ELA 7H IPC 1A,1B2B7A M	TEKS 125.5  (B) properly handle and dispose of humanly and/or environmentally hazardous materials used in maintaining and servicing vehicles; and		A. How is oil correctly disposed of?  B. When parts cleaner is dirty, what is the correct process for replacing it?  C. What do you do with old oil filters?  D. Carburetor dip is a hazardous material. How is it properly handled during usage?  E. What do you do with	Safety tour of shop	OSHA and EPA website



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			old antifreeze?		
ELA 8B IPC 3A M	TEKS 125.5  C) demonstrate knowledge of new and emerging automotive technologies		A. What is the definition of Hybrid vehicles? B. Name 3 safety issues dealing with Hybrids. C. What are other alternative fuels used in vehicles today?		Manufacturers websites
ELA 6E, 6A IPC 2D M	TEKS 125.5  <b>5</b> The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:		A. Simulate a working turn signal system on one of the Electrical trainer. Can you make it flash faster? B. Wire in a Series and a parallel circuit into the trainer with 3 loads. Which is the brightest. C. Can you build a series/parallel circuit with you existing system?	Atech Trainer usage	
ELA 7P 7H IPC 2B,2A M5B,M1C,M2A	TEKS 125.5  A) order, stock, and locate automotive parts;		A. Who will give you best service pertaining to parts/ B. Is the cheapest price better quality. C. Would you put cheap brakes on your Mom's car? D. Can some parts be replaced with salvage parts?	Call [parts dealers and salvage yards for pricing	Use Alldata online
ELA 6A, 5B IPC 2B,2D M1C	TEKS 125.5  (B) analyze malfunctions and remove, repair, and replace automotive engine components;			Pull up instructions from alldata	Use Alldata online



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<p>ELA IPC3A,2D M1A,M1C</p>	<p>TEKS 125.5  C) service and repair automotive propulsion systems;</p>		<p>A. Can you describe the basic function of an Engine? B. Can you describe the theory and operation of a manual transmission? C. Can you describe the theory and operation of an automatic transmission? D. What is the purpose of the different types of driveshafts? E. What is the difference in a differential and a front wheel drive transaxle assembly?</p>	<p>Shop Demonstrations</p>	
<p>ELA 7P,7H IPC2A,2B,7E M1A,M1C,M5A</p>	<p>TEKS 125.5  D) test, diagnose, service, and repair automotive electrical/electronic systems;</p>		<p>A. What is Ohms Law B. Can you define Volts? C. Can you define Ohms? D. Can you Define Amps E. What is voltage drop? F. What is CCA? G. Define Millivolts H. Define Milliamps I. What are Trouble codes?</p>	<p>A-Tech Trainer usage.</p>	
<p>ELA 6A IPC 1A,2A,2B,3A M5A</p>	<p>TEKS 125.5  E) diagnose, service, and repair automotive air- conditioning and heating systems;</p>		<p>A. Can you Describe the basic function of refrigerant systems? B. Where does the heater transfer heat from? C. Name all of the components in a modern A/C system and define their uses. D. What are EPA regulations on</p>	<p>Use Recycling/ recharging system in shop</p>	<p>Hazmat-U</p>



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			<ul style="list-style-type: none"> <li>E. refrigerants? What are some of the dangers in using refrigerants?</li> <li>F. Will low refrigerant level cause inoperative compressor clutch?</li> </ul>		
<p>ELA IPC 1A,2A,3A MIC</p>	<p>TEKS 125.5</p> <p>F) inspect, service, and repair automotive chassis and power train components and systems; and</p>		<ul style="list-style-type: none"> <li>A. What is the first step in diagnosing a problem with a vehicle that has been brought in to your shop by a customer?</li> <li>B. What does the saying “ Do it right the first time” mean?</li> <li>C. After getting all information from customer, what is your first step?</li> </ul>	Shop Demonstration	Alldata
<p>ELA 1,A,B,C IPC7D,7E,7A,2B MIC</p>	<p>TEKS 125.5</p> <p>(G) apply the essential knowledge and skills in automotive services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.</p>		<ul style="list-style-type: none"> <li>A. What is the job of your Mentor in a shop facility.</li> <li>B. Could there possibly be more than one?</li> <li>C. What is the correct procedure for borrowing a tool from your Mentor?</li> <li>D. Who is the most important person in the Dealership or Independent shop?</li> <li>E. Who pays your salary while working in the shop?</li> </ul>	Shadowship and Internships for upper classes.	

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