AMST1127 - Internal Combustion Engines

Credits:	4 (2/2/0)
Description:	This course covers all aspects of internal combustion engines. Diagnosis, measurement and repair of engine cylinder head components, timing components and cylinder block components are thoroughly covered. Service information and vehicle research is performed to test and repair vehicles.
Prerequisites:	• AMST1101
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Research vehicle service information including fluid type, internal engine operation, vehicle service history, service precautions and technical service bulletins. 2. Verify and research operation of the instrument panel engine warning indicators. 3. Inspect engine assembly for fuel, oil, coolant and other leaks to use in diagnosis and repair. 4. Identify and repair various engine cover gaskets with the proper cleaning procedures. 5. Understand, diagnose and repair oil and coolant consumption concerns. 6. Perform testing and diagnosis, measurements and repair of lower engine block assembly. 7. Perform failure analysis and determine the root cause of engine component failure. 8. Understand, diagnose and repair various engine mechanical timing systems. 9. Clean and inspect surfaces for warpage and surface finish. 10. Exhibit safety precautions and professionalism by maintaining a clean and safe work environment following OSHA and manufacturer guidelines 11. Locate, analyze and understand service information. 12. Diagnose and repair cylinder head components, including variable valve timing, valves, springs, rocker arms, seals, lifters, seats, camshafts and related components.
MnTC goal areas:	None

Can be taking as a Prerequisite or Corequisite.

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