

# DET 181 Credit By Exam Study Guide

Based on Fall 2018 Course Outline

- 1) Maintenance and Inspection Procedures
  - a) Scheduled maintenance
  - b) Preventive maintenance
- 2) Using Technical Manuals
  - a) Hard copy
  - b) Computerized
  - c) Service bulletins
- 3) Regulations for Different Industries
  - a) Department of Transportation (DOT)
  - b) Federal Railroad Administration (FRA)
  - c) Society of Automotive Engineers (SAE)
- 4) Lubrication
  - a) Solid and liquid lubricants
  - b) Lubrication procedures
  - c) Rating symbols
- 5) Failure Analysis
  - a) Metallic parts failures
  - b) Failures due to neglect/lack of maintenance
- 6) Tracks, Tires and Wheels
  - a) Condition and wear
  - b) Rims, wheels, rollers
- 7) Engine Compartment
  - a) Fluid levels
  - b) Leak inspection
  - c) Belts and hoses
  - d) Component mounting
  - e) Wiring and clamps
  - f) Air intake system
  - g) Fuel systems
  - h) Cooling systems
- 8) Electrical and Electronic systems
  - a) Inspect/test batteries
  - b) Battery cables and terminals
  - c) Starting system tests
  - d) Lighting system check
  - e) Gauges and instruments
  - f) Diagnostic display
  - g) Computer malfunction lamp diagnosis

- 9) Power Train
  - a) Transmission service
  - b) Rear axle service
  - c) Driveline inspection
  - d) Clutch adjustment
- 10) Chassis/Undercarriage
  - a) Steering system
  - b) Suspension inspection
  - c) Brake adjustment and inspection
  - d) Anti-lock brake malfunction diagnosis
  - e) Springs and attachments
  - f) Component mounts
- 11) Hydraulic Systems
  - a) Fluid type and level indicators
  - b) Filters and maintenance
- 12) Safety
  - a) Personal
  - b) Shop
  - c) Environmental/hazardous material handling