# AMST2236 - Automatic Transmissions

| | |
|---|---|
| Credits: | 5 (2/3/0) |
| Description: | This course covers the principles of automatic transmissions, including power flow, hydraulic systems, Pascal's law and electronic controls. Students learn planetary gearing, clutch operation, band application, one-way clutching and power flow inside an automatic transmission. Students overhaul an automatic transmission, identify components and assemble the transmission to be tested. |
| Prerequisites: | • AMST1135 |
| Corequisites: | |
| Pre/Corequisites*: | |
| Competencies: | 1. Exhibit safety precautions and professionalism by maintaining a clean and safe work environment, following OSHA and manufacturer guidelines.<br>2. Use service information to locate information related to the automatic transmission and learn the description and operation of an automatic transmission.<br>3. Understand and explain power flow for an automatic transmission.<br>4. Perform automatic transmission diagnostics using manufacture flow charts and strategy-based diagnostic procedures.<br>5. Understand, diagnose and repair internal transmissions components, including valve body, clutches, bands, planetary gear sets, hydraulic control devices, hydraulic pumps, sensors and solenoids and other internal components.<br>6. Understand, diagnose and repair automatic transmission cooling systems and related components.<br>7. Understand, diagnose and repair external transmission components.<br>8. Understand the relationship between the transmission control system and the engine control system.<br>9. Understand and identify different transmission types used in vehicles.<br>10. Use service information to locate transmission shift application charts and understand component relationships related to transmission concerns.<br>11. Understand, diagnose and repair automatic transmission control systems.<br>12. Perform live vehicle diagnostics for check engine light concerns for the transmission.<br>13. Understand Engine Control Module (ECM) inputs that affect transmission operation. |
| MnTC goal areas: | None |

**Can be taking as a Prerequisite or Corequisite.*

© 2026 Minnesota State Community and Technical College.
We reserve the right to periodically update information without notice.
The information in this publication should not be regarded as contractual in nature.