

---

## SECTION HEADING

### DSL 2106: Advanced Powertrain Theory

#### Description

Advanced Powertrain Theory explains the theory of operation of various power shift transmissions, power flow, and terminologies as related to various manufacturers. This course covers the theory of operation of electro hydraulic systems as well as a wide variety of power train systems from Ag equipment, industrial, and truck when and where available.

#### Credits

3

#### Prerequisite

DSL 1120 or DSL 1125

#### Topics to be Covered

1. Electro-hydraulically controlled transmissions
2. Advanced drive trains
3. Computer controlled powertrain systems
4. Power and hydraulic flows

#### Learning Outcomes

1. Discuss power shift, shuttle transmissions, hydro/ IVT and other new systems
2. Explain electrical hydraulics and testing different systems
3. Define high-pressure and low-pressure standby
4. Describe computer controlling powertrain systems
5. Research manuals for information on powertrain systems
6. Determine power flows
7. Describe procedures for hydraulic testing

#### Credit Details

Lecture: 3

Lab: 0

OJT: 0