

## AIS Customer Technical Course Schedule

### Summer Classes

- 3-day Air Conditioning class: August 12-14, 2026
- 3-day Air Conditioning class: August 19-21, 2026

### Winter Classes

- 2-day General Hydraulics: February 8-9, 2027
- 2-day Applied Hydraulics: February 15-16, 2027
- 2-day Advanced Hydraulics: February 22-23, 2027
- 2-day General Electrical: February 11-12, 2027
- 2-day Applied Electrical: February 18-19, 2027
- 2-day Advanced Electrical: February 25-26, 2027

### Spring Classes

- 5-day Hydraulics: May 3-7, 2027
- 5-day Electrical: May 17-21, 2027
- 2-day Fuel Systems: May 24-25, 2027
- 2-day Tier 4 Engines: May 27-28, 2027

### Summer Classes

- 3-day Air Conditioning class: August 11-13, 2027
- 3-day Air Conditioning class: August 18-20, 2027
- 5-day Air Powertrains: August 30 -September 3, 2027

### Fall Classes

- 5-day Hydraulics: Nov 8-12, 2027
- 5-day Electrical: Nov 22-26, 2027

The AIS Training Center offers quality, industry recognized Heavy Equipment Operator and Service Technician Training

LANSING  
3600 N. Grand River Ave.  
Lansing, MI 48906  
Phone: (517) 321-8000

GRAND RAPIDS  
600 AIS Drive Southwest  
Grand Rapids, MI 49548  
Phone: (616) 538-2400

DETROIT  
56555 Pontiac Trail  
New Hudson, MI 48165  
Phone: (248) 437-8121

TRAVERSE CITY  
8300 M-72 East  
Williamsburg, MI 49690  
Phone: (231) 267-5060

SAGINAW  
4600 AIS Drive  
Bridgeport, MI 48722

RICHMOND  
65809 Gratiot Avenue  
Lenox, MI 48050  
Phone: (586) 727-7311

**AIS courses offer students the best of small class sizes, a learning environment that encourages interaction and first-class hands-on learning activities that enhance their skills, “tools” that they can put to work immediately!**



Corp.

**TRAINING CENTER & TECHNICAL INSTITUTE**

**CUSTOMER FUNDAMENTALS TRAINING**

**517-321-8000**

# Hydraulics

## GENERAL HYDRAULICS

Pascals law, hydraulic principles, open/closed loop systems, open/closed center systems, hydraulic schematic introduction, hydraulic system overview.

## APPLIED HYDRAULICS

Technicians perform disassembly, inspection, and assembly of Pumps, valves, and cylinders. Technicians will conduct pump flow testing, cycle time testing, and power-checking hydraulic cylinders.

## ADVANCED HYDRAULICS

Technicians enhance their understanding of hydraulic diagnostics, Pressure compensation, Load-sensing, relieve valve testing/adjustment, PC adjustments, LS differential adjustments, Pilot systems, schematic reading and interpretation, PM tune-up a variety of hydraulic issues.

# Electrical

## GENERAL ELECTRICAL

Introduces students to a core foundation of electrical systems used in the heavy equipment industry. Technicians will be taught Ohm's law, Atomic structure, AC/DC, electron flow, Ohms Law, Circuits, and an introduction on meter use and schematic reading.

## APPLIED ELECTRICAL

The technician will perform basic testing on starting and charging systems, Batteries, starting circuits, charging circuits, and individual component testing, as well as further testing with meters and schematics.

## ADVANCED ELECTRICAL

Technicians explore hands on electrical diagnostics and troubleshooting on 2-wire/3-wire circuits, ECM, CAN, as well as reading and troubleshooting Diagnostic Trouble Codes (DTCs). adjustments.

# Drivetrains

5 day

Drivetrain fundamentals, theory of operation, inspection, common failures, and diagnostic procedures. Torque convertors, geared transmissions including shuttle-shift and power-shift, as well as Hydro-static (HST) single and dual path systems. All components from the engine flywheel to the tires/tracks will be discussed.

# Fuel

2 day

Diesel engine fuel system theory of operation, inspection, common failures, and diagnostic procedures. Mechanical, high pressure common rail (HPCR), HEUI, and unit pump/injector fuel systems will be discussed. Hands-on diagnostics with both low-pressure and high-pressure fuel related components, electron flow, Ohms Law, Circuits, and an introduction on meter use and schematic reading.



# Engines

**Final Tier 4 Engines  
Overview and Diagnostics**  
2 day

Covers an overview of the different engine EPA Tier standards and components, including DOC, DPF, fuel dosing, EGR, VGTs, SCR, and DEF. DPR regeneration and DEF injection is covered. Many different diagnostic testing procedures are explained and students complete hands-on testing on engines.

# HVAC

3 day

Covers overview of an Air Conditioning system and all components involved. Students conduct hands-on diagnostics and testing including using A/C machines and tanks/scale to recover, evacuate, charge, pressure test, and find leaks on Air conditioning systems. The last day of class students attempt the EPA 609 certification exam to earn a 609 certification. (Cost of exam is included in cost of the class)..

**1-day Class: \$400 per person**  
**2-day Class: \$800 per person**  
**3-day Class: \$1200 per person**  
**5-day class: \$2000 per person**



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# Class Options

*Hydraulic & Electrical classes are offered in 2 formats*

*2 Day classes General - Applied - Advanced*

*5 Day classes All 3 stand alone core classes offered in 1 week*

Classes are located at AIS Lansing, class starts at 8:00am—5:00pm. Lunch is provided along with coffee and refreshments in the morning.