

AG - MECHANICS (AGM)

AGM-113 Hydraulics I (3)

Introduces the basic laws and theories of fluid power. Includes operation and testing of pumps, valves, cylinders and motors commonly found in vehicles and equipment. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

AGM-124 Technical Procedures for Power Mechanics Technicians (3)

Identifies the general knowledge and procedures used by power technicians. Covers tool selection, general shop safety, fire safety and forklift operation. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

AGM-334 Advanced Ag Electronics (2)

Introduces diagnosis, operation and repair of electrical systems in precision farming equipment. Covers machinery construction and diagnostic wiring harnesses. Includes identifying guidance and application control components on machinery. Utilizes multimeters and fault codes to diagnose electrical system malfunctions. Arts & Sciences Elective Code: B
Hours per week: 1.0 lecture, 2.0 lab

AGM-403 Combine Operation & Adjustment (2)

Introduces combine operation and safety. Includes hands-on, in-the-field machine operation and adjustment. Arts & Sciences Elective Code: B
Hours per week: 1.0 lecture, 2.0 lab

AGM-404 Combine Servicing (4)

Emphasizes repairing and reconditioning combines and chopper units. Includes basic hydraulic, electric, power train, monitor, and chassis adjustments. Arts & Sciences Elective Code: B
Hours per week: 8.0 lab

Pre/corequisite: For Diesel Ag students only, AGM-403 must either be completed or taken in the same semester.

AGM-405 Ag Engines (3)

Introduces diesel engines commonly used in the ag industry. The design of engine components and subassemblies is examined with an emphasis on why certain design features are used. Correct procedures for testing and servicing ag engines are explained and demonstrated. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Take DSL-355.

AGM-406 Fundamentals of Power Transfer (3)

Includes an introduction to basic drive trains including clutches, manual transmissions, propeller shafts, rear axle assemblies and planetary gears. Emphasizes operation, diagnosis, repair and maintenance procedures. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

AGM-409 Agricultural Diagnosis (13)

Teaches diesel and gas-powered engine diagnosis and overhaul from a hands-on perspective. Integrates actual farm equipment repair with minimal instructor supervision. Emphasizes extensive engine testing, troubleshooting, repairing, inspecting and assembling. Arts & Sciences Elective Code: B
Hours per week: 3.0 lecture, 20.0 lab

Prerequisite: Take AGM-124. Take AGM-334. Take AGM-405. Take AGM-406. Take AGM-422. Take AGM-440. Take DSL-143. Take DSL-355.

Corequisite: Take AGM-414.

AGM-414 Fundamentals of Air Conditioning (2)

Provides a comprehensive introduction to air conditioning in diesel powered vehicles. Students gain a basic understanding of theory, diagnostic practices and procedures essential to air conditioning servicing. Arts & Sciences Elective Code: B
Hours per week: 1.0 lecture, 2.0 lab

AGM-419 Machinery Servicing (3)

Allows students to recondition used farm equipment such as planters, sprayers, disks and other tillage equipment. Does not include the engine-powered part of the machine. Includes testing and diagnosis of electronic monitoring systems. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

AGM-422 Diesel Fuel Systems (4)

Covers diesel fuel systems in relation to the engine itself. Diagnosis and testing or troubleshooting take place using special testing tools. Particular fundamentals are covered in compression testing, pump timing, engine component testing, and injector removal testing and repair. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 4.0 lab

Prerequisite: Take DSL-355.

AGM-440 Power Shift Transmissions (3)

Covers operation, theory, diagnosis and overhaul of fluid-driven equipment. Includes power shift, hydrostatic- and hydraulic-assist transmissions. Also includes torque converters. Arts & Sciences Elective Code: B
Hours per week: 1.5 lecture, 3.0 lab

Prerequisite: Take AGM-406.