

# COURSES

## AG MECHANIZATION

AGME 1207 Agriculture Equipment and Tools

1 lec/3 lab (2 Cr.) Introduction to hand tool and shop equipment skills and safety; including application, operation, maintenance, and repair.

Credits

2

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24.00

## AGME 1209 EQUIPMENT REPAIR

1 lec/3 lab (2 Cr.) Introduction to the skills required for maintenance, repair, and renovation of equipment.

Credits

2

Distribution

DEMR

Offered

Spring Only

Course Fee

Lab fee: \$24.00

## AGME 1353 HARVESTING EQUIPMENT

2 lec/3 lab (3 Cr.) Operation and maintenance including adjustment techniques of harvesting equipment.

Credits

3

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24.00

## AGME 1391 SPECIAL TOPICS IN AGRICULTURE MECHANICS

2 lec/3lab (3Cr.) Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology of occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

Credits

3

Distribution

DEMR

Offered

Spring Only

Course Fee

Lab fee: \$24.00

## DEMR 1166 PRACTICUM I

(1 Cr.) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

Credits

1

Distribution

DEMR

Course Fee

Lab fee: \$24.00

### DEMR 1191 Special Topics (CSS)

(1 Cr.) Topics addressed will resemble current topics in the field of John Deere Employment. Topics covered include, but are not limited to, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and will be relevant to the professional development of the students. Students taking the course will receive credit for College Success Skills.

Credits

1

Distribution

DEMR

Offered  
Fall Only

## DEMR 1225 SMALL AIR-COOLED ENGINES

1 lec/3 lab (2 Cr.) Fundamentals of air-cooled engines including repair and testing. This course includes the theory of operation, diagnosis, repair, pre-delivery procedures, including assembly and adjustment of attachments, and add-on accessories of small power equipment utilized in lawn, turf, garden, and the rental equipment industry. The course includes the safety of both the 2 cycle and 4 cycle engines.

Credits  
2  
Distribution  
DEMR  
Offered  
Spring Only  
Course Fee  
Lab fee: \$24.00

## DEMR 1229 PREVENTATIVE MAINTENANCE

1 lec/3 lab (2 Cr.) An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems.

Credits  
2  
Distribution  
DEMR  
Offered  
Spring Only  
Course Fee  
Lab fee: \$24.00

## DEMR 1301 SHOP SAFETY AND PROCEDURES

(2 lec/3 lab) 3 Cr. A study of shop safety, rules, basic shop tools, and test equipment.

Credits  
3  
Distribution  
DEMR  
Distribution  
Fall Only  
Course Fee  
Lab fee: \$24.00

## DEMR 1323 HEATING, VENTILATION & A/C (HVAC) TROUBLESHOOTING AND REPAIR

2 lec/3 lab (3 Cr.) Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs. Refrigerant recovery/recycling and ozone layer protection procedures are emphasized. Students, upon passing the air conditioning certification test, will be granted air conditioning certification.

Credits  
3  
Distribution  
DEMR  
Offered  
Spring Only  
Course Fee  
Lab fee: \$24.00

## DEMR 1391 SPECIAL TOPICS-DIESEL ENG MECH & REPAIR

2 lec/3 lab (3 Cr.) Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

Credits  
3  
Distribution  
DEMR  
Offered  
Spring Only  
Course Fee  
Lab fee: \$24.00

## DEMR 1405 BASIC ELECTRICAL SYSTEMS

3 lec/2 lab (4 Cr.) Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries.

Credits

4

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24.00

## DEMR 1406 DIESEL ENGINE I

2 lec/6 lab (4 Cr.) An introduction to the basic principles of diesel engines and systems.

Credits

4

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24.00

## DEMR 1416 BASIC HYDRAULICS

2 lec/6 lab (4 Cr.) Fundamentals of hydraulics including components and related systems. The operation, testing, repair, and adjustment of the hydraulic components is emphasized. Emphasis is placed on the use of technical language, JIC symbols, and safe operation with high pressure oil.

Credits

4

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24.00

## DEMR 1421 POWER TRAIN I

2 lec/6 lab (4 Cr.) Fundamentals, repair, and theory of power trains including clutches, transmissions, drive shafts, and differentials. Emphasis on inspection and repair.

Credits

4

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24.00

## DEMR 1449 DIESEL ENGINE II

2 lec/6 lab (4 Cr.) An in-depth coverage of disassembly, repair, identification, evaluation, and reassembly of diesel engines.

Credits

4

Distribution

DEMR

Offered

Spring Only

Course Fee

Lab fee: \$24.00

## DEMR 1466 PRACTICUM II

(4 Cr.) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

Credits

4

Distribution

DEMR

Offered

Summer Only

## DEMR 2166 PRACTICUM II

(1Cr.) Practical, general workplace training supported by an individualized learning plan developed by the employer college and student. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

Credits

1

Distribution

DEMR

Offered

Spring Only

Course Fee

Lab fee: \$24.00

## DEMR 2332 ELECTRONIC CONTROLS

2 lec/3 lab (3 Cr.) Advanced skills in diagnostic and programming techniques of electronic control systems. This course will include Service Advisor Remote and the JD Link to prepare the student for servicing the computers and programs provided with today's modern agricultural equipment. AMS (Agricultural Management System), GPS, RTK, and PM Pro will be introduced and studied.

Credits

3

Distribution

DEMR

Offered

Spring Only

Course Fee

Lab fee: \$24.00

## DEMR 2335 ADVANCED HYDRAULICS

2 lec/3 lab (3 Cr.) Advanced study of hydraulic systems and components including diagnostics, testing of hydraulic systems and electronics, electro-hydraulic, and computer controlled systems.

Credits

3

Distribution

DEMR

Offered

Spring Only

Course Fee

Lab fee: \$24.00

## DEMR 2338 POWER APPLICATIONS I

2 lec/3 lab (3 Cr.) Advanced power train applications with emphasis on testing and evaluation of components.

Credits

3

Distribution

DEMR

Offered

Spring Only

## Course Fee

Lab fee: \$24.00

**DEMR 2339 ADVANCED ELECTRICAL SYSTEMS**

2 lec/3 lab (3 Cr.) A continuation of basic electrical systems to include lighting, computer controls, and accessories. Emphasis on diagnosis, testing, and repair using the various diagnostic tools and procedures for current electronic systems.

## Credits

3

## Distribution

DEMR

## Offered

Spring Only

## Course Fee

Lab fee: \$24.00

**HYDR 1305 BASIC HYDRAULICS**

2 lec/2lab (3 Cr.) Fundamentals of hydraulics including safety types of hydraulic pumps, cylinders, valves, motors, and related systems. Introduction to hydraulic schematic symbols as related to components.

## Credits

3

## Distribution

HYDR

## Course Fee

Lab fee: \$24.00

**SMER 1166 PRACTICUM I**

(1 Cr.) Practical, general workplace training supported by an individualized learning plan developed by the employer college and student. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

## Credits

1

## Distribution

DEMR

**SMER 1291 SMALL ENGINE MECHANIC & REPAIR**

1 lec/3 lab (2 Cr.) Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

## Credits

2

## Distribution

DEMR

## Offered

Spring Only

## Course Fee

Lab fee: \$24.00

**SMER 1391 SPECIAL TOPICS IN SMALL ENGINE MECHANIC & REPAIRER**

2 lec/3 lab (3 Cr.) Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

## Credits

3

## Distribution

DEMR

## Offered

Spring Only

## Course Fee

Lab fee: \$24.00

## SMER 1466 PRACTICUM II

(4 Cr.) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

Credits

4

Distribution

DEMR

Offered

Summer Only

## SMER 2166 PRACTICUM III

1 Cr.) Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

Credits

1

Distribution

DEMR

Offered

Spring Only

## SMER 2337 ADVANCED EQUIPMENT SERVICE

2 lec/3 lab (3 Cr.) Advanced study in areas of specialization in marine units, motorcycles, all-terrain vehicles, or outdoor power equipment.

Credits

3

Distribution

DEMR

Offered

Fall Only

Course Fee

Lab fee: \$24