

AGRICULTURAL ENGINEERING TECHNOLOGY, A.A.S.

Major Code: 0512

Mechanization and automation in agriculture have created demand for technicians in agricultural engineering and mechanics by the farm equipment industry and by operators of large commercial farms. If a student is interested in mechanical applications and in agriculture, this curriculum can provide many challenging opportunities. The farm equipment industry today serves not only the commercial farmer but also is one of the major suppliers of such equipment as lawn, garden, and small recreational equipment, as well as construction equipment such as backhoes and small bulldozers for industrial uses.

Accreditation

The program is accredited by the Equipment and Engine Training Council.

Student Learning Outcomes

Upon successful completion of this program, students will be able to:

- Develop a comprehensive understanding of the mechanical function of the compression-ignition engines and modern agricultural equipment
- Develop a comprehensive understanding of electrical systems and electronic controls used for diesel-powered equipment and modern agricultural equipment
- Develop a comprehensive understanding of hydraulic systems, components and control systems used for transmitting hydraulic power in diesel-powered equipment and modern agricultural equipment
- Develop the ability to accurately and efficiently diagnose and repair failures in mechanical, electrical and hydraulic systems in diesel-powered equipment and modern agriculture equipment.

Curriculum Requirements

A minimum of 64 credits is required for degree completion.

Code	Title	Credits
OFFT 110	Introduction to MS Excel	1
AGEN 100	Equipment Care & Maintenance	3
AGEN 105	Principles of Farm Machinery	2
AGEN 115	Ag Engr Industry Overview	1
DTEC 125	Diesel Electrical Systems	4
DTEC 225	Diesel Electronics	4
AGEN 161	Basic Hydraulics	3
AUTO 102	Metals	3
AGSC 132	Introduction to Precision Farming	2
AGEN 210	Advanced Small Power Equipment	3
AGEN 220	Main,Rep, Perf Tune Artic Cat	4
AGEN 261	Advanced Hydraulics	4
AGEN 131	Fundamentals of Hydraulics	3
AGEN 270 or AGEN 300	Tractor Overhaul and Repair Intern Agricultural Engineerng	4-5
Select one of the following:		3
AGBS 100	Agricultural Economics	

ACCT 100	Accounting Info & Mgt Decision	
AGBS 240	Farm Management and Finance	4
DTEC 150	Diesel Systems	3
SUNY General Education Communication Written and Oral as advised		3
SUNY General Education Mathematics as advised		3
SUNY General Education Natural Sciences as advised (with lab)		4
Social Science Elective as advised (HIST, PHIL, POLI, SOCI)		6
Total Credits		67-68

Suggested Course Sequence

Course	Title	Credits
Year 1		
Fall		
AGEN 100	Equipment Care & Maintenance	3
AGEN 105	Principles of Farm Machinery	2
AGEN 131	Fundamentals of Hydraulics	3
AGEN 115	Ag Engr Industry Overview	1
AGSC 132	Introduction to Precision Farming	2
DTEC 125	Diesel Electrical Systems	4
SUNY General Education Mathematics as advised		3
Credits		18
Spring		
AGEN 161	Basic Hydraulics	3
AGEN 210	Advanced Small Power Equipment	3
DTEC 225	Diesel Electronics	4
AUTO 102	Metals	3
SUNY General Education Natural Sciences as advised (with lab)		4
Credits		17
Year 2		
Fall		
AGEN 261	Advanced Hydraulics	4
DTEC 150	Diesel Systems	3
Select one of the following:		3
AGBS 100	Agricultural Economics	
AGBS 240	Farm Management and Finance	
ACCT 100	Accounting Info & Mgt Decision	
SUNY General Education Communication Written and Oral as advised		3
OFFT 110	Introduction to MS Excel	1
Social Science Elective as advised		3
Credits		17
Spring		
AGEN 270 or AGEN 300	Tractor Overhaul and Repair or Intern Agricultural Engineerng	4-5
AGEN 220	Main,Rep, Perf Tune Artic Cat	4
Social Science Elective as advised		3
Credits		11-12
Total Credits		63-64