Agricultural Mechanization (AGME)

Courses

AGME 1611L. Fundamentals of Agricultural Systems Technology Laboratory. 1 Hour.
Study of basic mathematical and physical science concepts important in the mechanization of agriculture. Laboratory required for agricultural education, communication and technology majors enrolled in AGME 1613, optional for others enrolled in AGME 1613. Corequisite: AGME 1613.

AGME 1613. Fundamentals of Agricultural Systems Technology. 3 Hours.
Introduction to basic physical concepts important in agricultural technical systems: applied mechanics, power and machinery management, structures and electrification, and soil and water conservation. Lecture 3 hours per week. Corequisite: AGME 1611L (for AECT Majors).

AGME 2123. Metals and Welding. 3 Hours.
An introduction to agricultural mechanics shop work to include hot and cold metal work, arc welding, and gas welding and cutting. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component.

AGME 2903. Agricultural and Human Environmental Sciences Applications of Microcomputers. 3 Hours.
Lecture and laboratory assignments covering the contemporary use of microcomputers in agricultural, food and life sciences. Emphasis placed on learning to use selected, appropriate Microsoft (Windows, Word, Excel, PowerPoint and Access), email/Internet, and collaboration software packages.

AGME 3042. Agricultural Construction Technology. 2 Hours.
Principles of building design and construction. Includes site selection calculating structural loads and computerized packages for building design. Safety practices, selection of building materials and determining costs are also included. Lecture is one hour and lab is two hours per week. Prerequisite: MATH 1203 and junior standing.

AGME 3101L. Small Power Units/Turf Equipment Laboratory. 1 Hour.
Testing, evaluation, and maintenance of engines, hydrostatic power transmission systems, and equipment commonly used in the turf and landscaping industries. Corequisite: AGME 3102. Prerequisite: MATH 1203.

AGME 3102. Small Power Units/Turf Equipment. 2 Hours.
Principles of operation, adjustment, repair, maintenance, and trouble shooting of small air-cooled engines and power units, including various engine systems, service and maintenance of turf equipment and machinery. Lecture 2 hours per week. Corequisite: AGME 3101L. Prerequisite: MATH 1203.

AGME 3153. Surveying in Agriculture and Forestry. 3 Hours.
Techniques and procedures normally used in determining areas and characterizing the topography of agricultural and forest lands. Includes basic concepts of surveying; use and care of level, transit, distance measuring equipment; topographic mapping and public land surveys.

AGME 3173. Electricity in Agriculture. 3 Hours.
Principles of electricity; wiring of home, farmstead and other agricultural structures; selection of electric motors and their care and application in the broad field of agriculture; lighting and special uses of electricity such as heating and electrical controls. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

AGME 400V. Special Problems. 1-6 Hour.
Individual research or study in electrification, irrigation, farm power, machinery, or buildings. Prerequisite: Senior standing. May be repeated for up to 6 hours of degree credit.

AGME 402V. Special Topics in Agricultural Mechanization. 1-4 Hour.
Topics not covered in other courses or a more intensive study of special topics in agricultural mechanization. May be repeated for degree credit.

AGME 4203. Mechanized Systems Management. 3 Hours.
Selection, sizing, and operating principles of agricultural machinery systems, including power sources. Cost analysis and computer techniques applied to planning and management of mechanized systems. Corequisite: Lab component. Prerequisite: MATH 1203.

AGME 4973. Irrigation. 3 Hours.
Methods of applying supplemental water to soils to supply moisture essential for plant growth, sources of water, measurement of irrigation water, pumps, conveyance structure, economics, and irrigation for special crops. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

AGME 500V. Special Problems. 1-6 Hour.
(Formerly AGME 400V.) Individual research or study in electrification, irrigation, farm power, machinery, or buildings. Graduate degree credit will not be given for both AGME 400V and AGME 500V. May be repeated for up to 6 hours of degree credit.

AGME 501V. Special Topics in Agricultural Mechanization. 1-4 Hour.
(Formerly AGME 402V.) Topics not covered in other courses or a more intensive study of special topics in agricultural mechanization. Graduate degree credit will not be given for both AGME 402V and AGME 501V. May be repeated for degree credit.

AGME 5203. Mechanized Systems Management. 3 Hours.
(Formerly AGME 4203.) Selection, sizing, and operating principles of agricultural machinery systems, including power sources. Cost analysis and computer techniques applied to planning and management of mechanized systems. Graduate degree credit will not be given for both AGME 4203 and AGME 5203. Corequisite: Lab component. Prerequisite: MATH 1203.

AGME 5973. Irrigation. 3 Hours.
(Formerly AGME 4973.) Methods of applying supplemental water to soils to supply moisture essential for plant growth, sources of water, measurement of irrigation water, pumps, conveyance structure, economics, and irrigation for special crops. Lecture 2 hours, laboratory 2 hours per week. Graduate degree credit will not be given for both AGME 4973 and AGME 5973. Corequisite: Lab component.