

AGRICULTURAL MECHANICS DEPARTMENT

Principal Vocational Instructor: C. Jensen (Chairman)

Intermediate Vocational Instructor: DeTar, Keck

The Agricultural Mechanics Department offers a major for students who wish to qualify for positions in such fields as farm equipment sales and service, farm structures, rural electrification, teaching vocational agriculture, and farming. Students are trained in the selection, operation, construction, maintenance, and repair of equipment and structures used in modern agriculture.

The agribusiness major with an option in agricultural mechanics prepares students for positions in areas such as farm machinery and equipment sales; appraising insurance companies and banks; management, credit, accounting and other office work; and general farming.

The new Agricultural Mechanics Building and the Farm Machinery Center located adjacent to it provide excellent laboratory facilities. The production of hay, cotton, corn, grain crops, grapes, and fruit provides excellent opportunity for a study of farm machinery equipment under varied conditions. The entire College Farm is used as a working laboratory.

Students majoring in Agricultural Engineering enroll under the Engineering Department. They complete a minimum of 24 units in Agricultural Mechanics and Agriculture (see page 263).

BACHELOR OF SCIENCE DEGREE AND THE TECHNICAL CERTIFICATE

AGRICULTURAL MECHANICS

General Education Requirements

All bachelor of science degree students must satisfy the general education requirement by completing 45 semester units as indicated on page 70.

Agricultural Mechanics Major Requirements

AgM 15a-b	_____	4
AgM 17	_____	2
AgM 18a-b	_____	4
AgM 25	_____	2
AgM 81	_____	3
AgM 91	_____	2
AgM 111	_____	2
AgM 115a-b	_____	4
AgM 121	_____	2
AgM 151a-b	_____	4
AgM 159	_____	3
Ag 136	_____	3
Ag 146	_____	3
AgM elective	_____	-
		38

Agribusiness Major Requirements (Agricultural Mechanics Option)

AgM 15a-b, 17, 18a, 25, 81, 91, 111, 115a-b, 151a-b, 159	_____
Ag 136, 146, 182 or 184	_____
Acctg. 1a-b, Mktg. 100	_____
Bus. Ad. 102, 110, 118a-b, 133, 151	_____
Business electives (u.d.)	_____

Additional Requirements—B.S. Degree

In addition, degree students (except agribusiness) must complete the following courses: Ag 1, 151; Physics 2a-b, 2a-bL; Animal Science and/or Plant Science electives (6 units); Ind. Arts 10a-b; Econ. 1a; Biol. 1a or 1b; Math. B and C. Agribusiness majors take Ag 1, 31, 112, Biol. 1a or 1b, Physics 2a-b, Econ. 1a-b, and Math. B, C. A total of 128 semester units required for graduation.

Additional Requirements—Technical Certificate

Technical students must complete, in addition to the major requirements, the following courses: Ag 1, 31, 40, 151; Bus. Ad. 27; Animal Science and/or Plant Science electives (10 units); Soc. Sci. 3a-b; Biol. 1a or 1b; Phys. Ed. (4 semesters); Health Ed. 90 or 91; Engl. 1a; Speech 20 or 24. A total of 84 semester units required for the technical certificate.

Courses

NOTE: Active immunization against tetanus (available through the Student Health Service) is a prerequisite for registration in any laboratory course in agriculture and for any student employment on the College Farm.

AGRICULTURAL MECHANICS

AgM 15a-b. Agricultural Mechanics (2-2) F and S

C. Jensen-DeTar

(a) Mechanical skills in field of agriculture; selection, care and use of common farm tools; projects of wood and metal in farm appliances. (b) Advanced work in mechanical skills; projects for home or on the farm. (1 lecture, 3 lab hours)

AgM 17. Farm Tractors (2) F and S (Former AgM 124)

DeTar

Operation and maintenance of farm tractors; operation of farm tractor under field conditions; service, maintenance and minor repair of gas, diesel, and butane type engines of wheel and crawler type. (1 lecture, 3 lab hours; and total of five hours of field operation.)

AgM 18a-b. Agricultural Welding (2-2) F-S

C. Jensen

Prerequisite or concurrently: AgM 15a. (a) Arc and oxyacetylene welding as a tool of construction and repair in the farm shop; brazing; building up worn parts; burning with hand torch. (b) Hard facing by arc and gas welding; AC and DC welding and application to farm construction and repair; welding projects and farm appliances. (1 lecture, 3 lab hours)

AgM 25. Agricultural Drafting (2) F

Keck

May be taken concurrently with AgM 15a. Use of drafting instruments, lettering, dimensioning, scale drawings and working drawings of projects in agricultural mechanics; elementary plan and perspective drawings of small buildings. (1 lecture, 3 lab hours)

AgM 81. Farm Structures (3) F and S

DeTar

Prerequisite: AgM 15a. Construction and repair of farm structures and equipment; farm carpentry and construction principles; engineering principles, codes; farmstead layouts and basic requirements of farm structures. (2 lecture, 3 lab hours)

AgM 91. Farm Surveying (2) F and S

Keck

Prerequisite: sophomore standing or permission of instructor. Use of the steel tape, level, transit and compass; field problems in chaining distances, laying out building lines, profile leveling for irrigation ditches and drains, land leveling, and measuring land areas. (1 lecture, 3 lab hours)