

01.0201

Agricultural Mechanics and Technology Cluster

The Agricultural Mechanics and Technology program prepares individuals in a general way to sell, select and service agriculture or agribusiness technical equipment and facilities, power units, machinery, equipment, structures and utilities. The program includes instruction in agricultural power units; the planning of and selecting of materials for the construction of agricultural facilities; the mechanical practices associated with protecting and improving the environment and conserving and utilizing natural resources. Employment opportunities are available to workers with competencies in the field of agricultural mechanics in both semiskilled and skilled areas of employment.

Training received in this program may be used as a basis for entry level into the labor market or for further education at a postsecondary agency. Articulation between the secondary and postsecondary programs will be a part of the regional delivery systems.

The following are examples of occupations that require knowledge and skills in the area of agricultural mechanics and could be entered upon successful completion of this secondary program.

Farm Machinery Set-up Mechanic
Lawn and Garden Equipment Mechanic
Construction Laborer
Hardware/Lumber Yard Attendant

The following occupational listing shows examples of occupations that are available to students who advance and successfully complete a specialized program at the postsecondary level.

<i>Farm Equipment Mechanic</i>	<i>Construction Supervisor</i>
<i>Tractor Mechanic</i>	<i>Design Estimator</i>
<i>Diesel Mechanic</i>	<i>Surveying Technician</i>
<i>Parts Manager</i>	<i>Soil and Water Technician</i>
<i>Construction Equipment Operator</i>	<i>Welder</i>
<i>Custom Equipment Applicator/Operator</i>	

In addition to those occupations already noted, there are many agricultural occupations of a professional nature requiring a baccalaureate degree and beyond. Examples of such occupations would include

Structural Engineer
Environmental Engineer
Design Engineer

Workplace skills such as 1) those skills used in work performance that are transferable across jobs and occupations and that are instrumental to job and classroom success, 2) skills used to manage life's transitions and 3) skills employed in the resolution of interpersonal, information or task-related problems or problems related to behavior in cooperative group settings should be included in this curriculum. Leadership skill development is an integral part of this program and is delivered through career and technical student organization (FFA) activities. Individualized instruction and learning reinforcement are provided through supervised agricultural experience programs (SAEPS) maintained by each student.

AGRICULTURAL MECHANICS AND TECHNOLOGY COURSE SEQUENCE

Course Title	Credits per Semester	Length in Semesters	Grade Level
<u>Orientation</u>			
Introduction to the Agricultural Industry	.5	2	9
Basic Agricultural Science	.5	2	10
Basic Agriculture Mechanics	.5	2	10
Supervised Agricultural Experience Program I	*variable	2	9, 10
<u>Preparation</u>			
Agricultural Machinery Service	.5	2	11, 12
Agricultural Construction & Technology	.5	2	11, 12
Agricultural Mechanics and Technology	.5	2	11, 12
Agricultural Leadership	.5	1	11, 12
Agricultural Communications	.5	1	11, 12
Agricultural Business Management	.5	2	11, 12
Biological Science Applications in Agriculture (Plants)	.5	1	11, 12
Biological Science Applications in Agriculture (Animals)	.5	2	11, 12
Physical Science Applications in Agriculture I	.5	1	11, 12
Physical Science Applications in Agriculture II	.5	1	11, 12
Supervised Agricultural Experience Program II	*variable	2	11, 12
Agricultural Cooperative Education	*variable	2	12

* As determined at the regional system level.