



Agricultural Mechanization CIP Code 01.0201

Introduction – Program of Study

Technical training is becoming more important because of the development of more complex farm machinery and because of recent efforts to standardize skills within the occupation. Employers prefer to hire farm equipment mechanics that have completed a one or two year postsecondary training program in agricultural or farm mechanics at a vocational school or community college. Mechanics need to have a working knowledge of computers. They also need to be able to read circuit diagrams and blueprints in order to make complex repairs to electrical systems.

Farm equipment dealers employ most of the farm equipment mechanics. Often called service technicians, these workers service, maintain and repair farm equipment as well as smaller lawn and garden tractors sold to suburban homeowners. Many of today's farms use more sophisticated equipment and advanced business practices than ever before. Specialized farm machinery has grown in size, complexity, variety and does everything from tilling the land to milking the cows. Modern equipment uses electronics and hydraulics, making it difficult to perform repairs without specialized training. Mechanics work mostly on equipment brought into the shop for repair and adjustment.

Agricultural products and equipment sales representatives are an important part of manufacturers' and wholesalers' success. Regardless of the type of product they sell, their primary duties are to interest wholesale and retail buyers and purchasing agents in their merchandise and to address any of the client's questions or concerns. They also advise clients on methods to reduce costs, increase sales, and utilize their products. Agricultural sales representatives market their company's products to manufacturers, wholesale and retail establishments, government agencies and other institutions.

Other occupations related to agricultural mechanization may include the following competencies: maintain records and report data to agricultural related companies or government agencies; examine or test crops and farm products to estimate value or determine evidence of disease or pest damage; calculate crop yields, as related to government quotas; arrange for loans or financing for agricultural business owners, in order to sell feed, fertilizer, or insecticides; travel to large farms for onsite repair of large machinery; and, maintain, repair, and overhaul farm machinery and irrigation systems.

Individuals completing this program may be employed as a farm equipment mechanic, service

technician, tractor mechanic, shop mechanic, agricultural technician, grain merchandiser, grain buyer, grain division manager, grain origination specialist, farm marketer, tobacco buyer, or purchasing agent.

Assumptions of this Program of Study

High quality programs should meet the following standards:

1. Promote positive working relationships.
2. Implement a curriculum that fosters all areas of skill development
3. Use appropriate and effective teaching approaches.
4. Provide ongoing assessments of student progress.
5. Employ and support qualified teaching staff.
6. Establish and maintain relationships and use resources of the community.
7. Provide a safe and healthy learning environment.
8. Implement strong program organization and supervision policies that result in high quality teaching and learning.
9. Integrate academic skills and aptitudes necessary for postsecondary education, gainful employment and a foundation of lifelong learning.

CIP Code

01.0201 Agricultural Mechanization

This is an instructional program that prepares individuals to sell, select and service agriculture or agribusiness technical equipment and facilities including computers, specialized software, power units, machinery, equipment, structures and utilities. This program includes instruction in agriculture power units, mechanical systems, the planning and selection of materials for the construction of agriculture facilities, safe mechanical practices associated with water conservation, erosion control and data processing systems.

For more information, contact:

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