



Agricultural Engineering, Industrial, & Mechanical Systems

Agriculture, Food, & Natural Resources

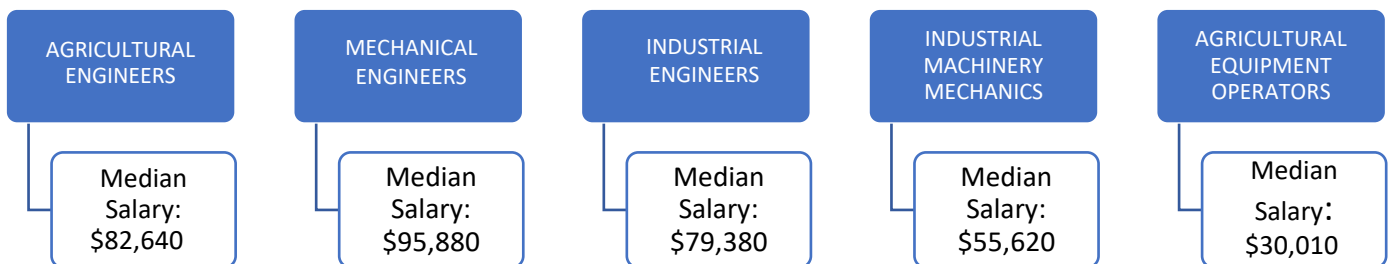
JOB OUTLOOK

Agriculture is one of the largest industries in the world and is being impacted by several emerging fields and new technologies. This increases the need for the adoptions of new agricultural technologies and careers in the area of agricultural and industrial mechanical systems to meet the need for 21st century agricultural jobs. Employment opportunities are expected to increase rapidly in the operation of highly technical production, processing, and management systems.



OCCUPATION PROFILE

Architectural and engineering managers have the highest salary range while occupations with specific mechanical and industry skills have the larger number of job openings within the Agricultural Engineering, Industrial, & Mechanical Systems programs of study. While several new and emerging occupations are rapidly evolving in the unmanned aircraft systems and digital technology applications sectors, these occupations will require knowledge of mechanical, engineering, and industrial equipment operation and repair. They may work with remote-controlled equipment either indoors or outdoors.



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Memphis-Shelby County Schools



ROAD MAP TO SUCCESS

PROGRAM OF STUDY PROFILE

The Agricultural Engineering, Industrial, & Mechanical Systems program of study is designed for students interested in agricultural engineering, design, and mechanical maintenance. Students will have the opportunity to develop foundational and practical knowledge of fuel powered, engines, electrical devices, hydraulic, arc welding, metal cutting, and geographic information systems (GIS). Students will develop the skills for entry level occupation or additional postsecondary training.

CAREER PATHWAY

SECONDARY EDUCATION

- * Agriscience
- * Principles of Agricultural Mechanics
- * Agricultural Power and Equipment
- * Agricultural and Biosystems Engineering

ASSOCIATE

CERTIFICATE:

- * Farm Operations Technology
- * Digital Agronomy

BACHELORS

- * B.S. Biosystems Engineering
- * B.S. Construction Science & Agricultural Systems
- * B.S. Environmental and Soil Science
- * B.S. Agriculture

MSCS PARTICIPATING SCHOOLS: Bolton HS & Kirby HS

LOCAL EMPLOYERS: Augmenta, Kimley-Horn, National Pump Company, Tennessee Department of Environment and Conservation, and US Department of Agriculture