



Food Science

Agriculture, Food, & Natural Resources

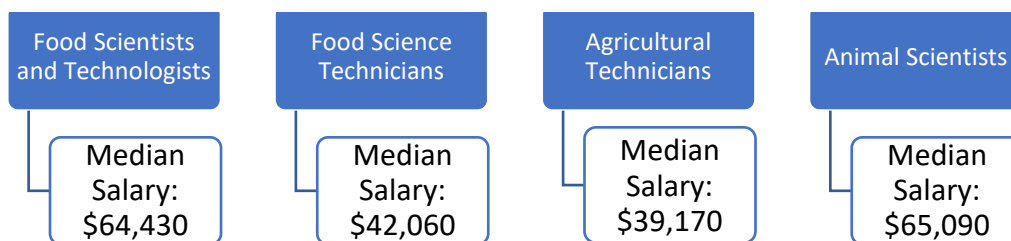
JOB OUTLOOK

Overall employment of agricultural and food science technicians is projected to grow 9 percent and food scientists is projected to grow 8 percent from 2021 to 2031, faster than the average for all occupations. About 4,900 openings for agricultural and food science technicians and 4,100 openings for agricultural and food scientists are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.



OCCUPATION PROFILE

Food Science technicians work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. **Food scientists or technologists** use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food. **Agricultural Technicians** work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. **Animal Scientists** conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.



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Memphis-Shelby County Schools



ROAD MAP TO SUCCESS

PROGRAM OF STUDY PROFILE

The Food Science program of study designed to introduce students to the growing fields of food science and technology industry. This program of study includes plant and animal structural anatomy, systems, economics of production, genetics and biotechnology, and other management approaches associated with plant and animal production. Advanced courses explore food safety and sanitation, foodborne pathogens, food-related standards and regulations, characteristics and properties of food products, processing and grading techniques and skills, and food labeling and packaging. Upon completion of this course, students will be equipped with the technical knowledge and skills necessary for further education and careers in food science.

CAREER PATHWAY

SECONDARY EDUCATION

- * Agriscience
- * Principles of Food Production
- * Food Science and Safety
- * Advanced Food Science
- * Dual Enrollment

ASSOCIATES

- * A.A.S. Agriculture

BACHELORS

- * B.S. Animal Science
- * B.S. Plant Science

MSCS PARTICIPATING SCHOOLS: Bolton HS

DUAL ENROLLMENT: Food Science I – Bolton HS + Tennessee State University (TSU) * Food Science II – Bolton HS + Tennessee State University (TSU)

LOCAL EMPLOYERS: EarthCon Consultants, Inc., Kemmons-Wilson, Memphis-Shelby County Schools, Sam’s Club, St. Jude Children’s Research Hospital, The Fresh Market, and Tizer Meats