

Food Products and Technology (2021-)

Demonstrate professional standards/employability skills as required by welding professionals associated with the agricultural industry. [AFNR.HS.9.1.](#)

- a Identify career development and opportunities in the associated fields of the welding industry.** [AFNR.HS.9.1.A](#)
- b Apply information in career planning and employment situations related to agricultural welding.** [AFNR.HS.9.1.B](#)
- c Compare certifications, credentialing, and compliance within the industry.** [AFNR.HS.9.1.C](#)

Apply safety principles, practices, and guidelines to the work environment. [AFNR.HS.9.2](#)

- a Demonstrate knowledge of safety principles for the laboratory environment and industry.** [AFNR.HS.9.2.A](#)
- b Identify personal and occupational health practices including safety and first-aid practices.** [AFNR.HS.9.2.B](#)
- c Demonstrate awareness of safety devices assembled and installed correctly on tools and devices.** [AFNR.HS.9.2.C](#)
- d Apply the requirements of eye safety protection and other Personal Protection Equipment.** [AFNR.HS.9.2.D](#)
- e Identify the injuries/illnesses possible in the industry and laboratory.** [AFNR.HS.9.2.E](#)

Perform precision measurements. [AFNR.HS.9.3](#)

- a Select and use proper measuring devices.** [AFNR.HS.9.3.A](#)
- b Utilize math formulas to complete work and job tasks.** [AFNR.HS.9.3.B](#)
- c Measure components to begin project preparations.** [AFNR.HS.9.3.C](#)

Demonstrate use of welding symbols, materials, and weldability. [AFNR.HS.9.4](#)

- a Develop and identify basic drawings, types, symbols, and list of materials.** [AFNR.HS.9.4.A](#)
- b Demonstrate the ability to read and/or produce prints.** [AFNR.HS.9.4.B](#)
- c Identify and explain the knowledge of materials, their properties, and methods to use them.** [AFNR.HS.9.4.C](#)

d Estimate materials and cost associated. AFNR.HS.9.4.D

Demonstrate types of assembling processes. AFNR.HS.9.5

a Demonstrate welding techniques used in an agricultural setting with the following processes: O-A, Arc, GMAW, and/or GTAW. AFNR.HS.9.5.A

b Utilize appropriate procedures to the design and production of a manufactured agricultural part or component. AFNR.HS.9.5.B

c Identify the proper finish for the selected materials. AFNR.HS.9.5.C