

# Agricultural Mechanics II

Understand leadership qualities involved in successful employment. [AS32.1.00](#)

- 1.01** Understand the leadership qualities and career building techniques desired by the agricultural mechanics industry. [AS32.1.01](#)
- 1.02** Understand parliamentary procedure. [AS32.1.02](#)

Understand the Supervised Agricultural Experience component of the agricultural mechanics program. [AS32.2.00](#)

- 2.01** Understand SAE components and application to work-based learning. [AS32.2.01](#)
- 2.02** Understand a financial statement. [AS32.2.02](#)

Apply shop safety skills in the agriculture shop. [AS32.3.00](#)

- 3.01** Understand OSHA safety rules, color coding, and equipment safety in an agricultural mechanics shop. [AS32.3.01](#)
- 3.02** Apply safety skills when practicing cold and hot metal skills. [AS32.3.02](#)

Apply metal fabrication skills in the agricultural shop. [AS32.4.00](#)

- 4.01** Apply proper procedures for using bolts, nuts, washers, screws, and rivets. [AS32.4.01](#)
- 4.02** Apply the proper use of metal fabrication equipment such as plasma cutters, chop saws, grinders, band saws, and CNC (Computer Numerical Control). [AS32.4.02](#)
- 4.03** Apply proper procedures for using oxy-fuel equipment and materials for annealing, bending, brazing, soldering, tempering, hardening, cutting, and welding various materials. [AS32.4.03](#)
- 4.04** Apply proper procedures for using arc welding equipment and materials for SMAW, GMAW, and GTAW. [AS32.4.04](#)
- 4.05** Apply metal fabrication skills to design plans, read symbols, and construct a project. [AS32.4.05](#)

Apply the use of agricultural power in agricultural mechanics. [AS32.5.00](#)

- 5.01** Understand the principles of operation and troubleshooting techniques for air-cooled and water-cooled engines. [AS32.5.01](#)
- 5.02** Apply preventative maintenance procedures to service small engine powered tools, equipment, tractors and attachments. [AS32.5.02](#)

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**5.03** Apply principles and procedures for the safe use of tractors and power equipment. AS32.5.03

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**Apply plumbing principles used in agricultural mechanics.** AS32.6.00

**6.01** Understand plumbing principles and materials. AS32.6.01

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**6.02** Apply proper safety and industry approved techniques to install plumbing materials. AS32.6.02

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**Apply concrete and masonry principles to complete agricultural mechanics projects.** AS32.7.00

**7.01** Understand concrete and masonry principles to construct masonry projects in agricultural mechanics. AS32.7.01

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**7.02** Apply concrete and masonry principles to calculate materials needed and cost for a masonry project. AS32.7.02

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**7.03** Apply principles to construct a concrete/masonry project. AS32.7.03

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