

# Welding 2

Apply safety principles, practices, philosophy, and guidelines to the work environment. [STS.HS.37.1](#)

- a** Complete applicable safety assessment with 100% accuracy. [STS.HS.37.1.A](#)
- b** Use appropriate Personal Protective Equipment (PPE) while in the lab setting. [STS.HS.37.1.B](#)
- c** Use eye protection in compliance with Neb. Rev. Statute 79-715. [STS.HS.37.1.C](#)
- d** Carry out the safe application of tools and machines. [STS.HS.37.1.D](#)
- e** Explain the main hazards that are possible in the lab setting. [STS.HS.37.1.E](#)
- f** Demonstrate proper handling and storing of materials. [STS.HS.37.1.F](#)

Investigate career opportunities in the welding industry. [STS.HS.37.2](#)

- a** Describe work behaviors needed to be employable. [STS.HS.37.2.A](#)
- b** Identify employment trends in the welding industry [STS.HS.37.2.B](#)
- c** Identify the responsibilities and characteristics of professionals in the welding industry. [STS.HS.37.2.C](#)
- d** Identify the training, education, certification and licensing requirements for careers in the welding industry. [STS.HS.37.2.D](#)

Demonstrate the use of welding communications. [STS.HS.37.3](#)

- a** Explain welding terminology. [STS.HS.37.3.A](#)
- b** Describe a quality weld according to the American Welding Society (AWS). [STS.HS.37.3.B](#)
- c** Measure metric and imperial measurements within an accuracy of a millimeter or 1/32 of an inch. [STS.HS.37.3.C](#)
- d** Explain mechanical drawings according to the American National Standards Institute (ANSI). [STS.HS.37.3.D](#)
- e** Explain welding symbols according to the AWS. [STS.HS.37.3.E](#)
- f** Solve mathematical functions used in welding. [STS.HS.37.3.F](#)
- g** Interpret information from a welding procedure sheet. [STS.HS.37.3.G](#)

**Identify the materials, tools, and equipment needed to weld.** STS.HS.37.4

- a Identify tools and their use in welding.** STS.HS.37.4.A

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- b Identify welding equipment and proper set up procedures according to the manufacturers' recommendations.** STS.HS.37.4.B

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- c Identify the material used in welding.** STS.HS.37.4.C

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- d Identify the filler material used in welding.** STS.HS.37.4.D

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- e Identify types of fasteners, adhesives, and finishes used for welding.** STS.HS.37.4.E

**Perform metal cutting operations.** STS.HS.37.5

- a Perform an abrasive cutting procedure.** STS.HS.37.5.A

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- b Perform a mechanical cutting procedure.** STS.HS.37.5.B

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- c Perform a hot (flame) source cutting operation.** STS.HS.37.5.C

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- d Perform an arc cutting operation.** STS.HS.37.5.D

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- e Perform an automated cutting operation.** STS.HS.37.5.E

**Perform welding procedures in the flat, horizontal, and vertical positions.** STS.HS.37.6

- a Create a pad of surface welds with no welding defects according to the AWS.** STS.HS.37.6.A

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- b Create groove joints with no welding defects according to AWS standards.** STS.HS.37.6.B

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- c Create fillet welds with no welding defects according to AWS standards.** STS.HS.37.6.C

**Produce a product with welding processes.** STS.HS.37.7

- a Use a drawing with welding symbols according to AWS.** STS.HS.37.7.A

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- b Cut the materials according to the technical drawing.** STS.HS.37.7.B

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- c Weld the materials according to the technical drawing.** STS.HS.37.7.C

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- d Finish the materials according to the technical drawing.** STS.HS.37.7.D