Nebraska CTE

# Architectural Design 1

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| **Apply safety principles, practices, philosophy, and guidelines to the work environment.** STS.HS.6.1 | **a** Employ eye protection in compliance with Neb. Rev. Statute 79-715. STS.HS.6.1.A |
| | **b** Identify office safety hazards. STS.HS.6.1.B |
| | **c** Employ appropriate Personal Protective Equipment (PPE). STS.HS.6.1.C |
| | **d** Employ proper ergonomics. STS.HS.6.1.D |
| | **e** Complete applicable safety assessment with 100% accuracy. STS.HS.6.1.E |
| **Identify architectural career opportunities.** STS.HS.6.2 | **a** Identify the primary duties and attributes of an architect or architectural technician. STS.HS.6.2.A |
| | **b** Describe the various careers within the architectural profession (i.e., drafting technician, designer, project manager, architect, landscape architect, and interior designer) and the training and certification needed for each. STS.HS.6.2.B |
| | **c** Identify the relationships between all stakeholders involved in a construction project. STS.HS.6.2.C |
| | **d** Identify positive work behaviors and personal qualities needed to be employable. STS.HS.6.2.D |
| **Apply math terminology, functions, and formulas to architectural design.** STS.HS.6.3 | **a** Identify whole numbers, decimals, fractions, and complex numbers. STS.HS.6.3.A |
| | **b** Apply arithmetic operations. STS.HS.6.3.B |
| | **c** Solve decimal/fraction conversions. STS.HS.6.3.C |
| | **d** Apply algebraic skills to solve problems involving area, volume, and angles. STS.HS.6.3.D |
| | **e** Explain scale using architect or engineer scales. STS.HS.6.3.E |
| **Utilize drafting and design technology.** STS.HS.6.4 | **a** Employ the appropriate technology tools (i.e., CAD, SolidWorks, Fusion 360, Inventor, etc.) for conveying information, solving problems, and expediting workplace processes. STS.HS.6.4.A |
| | **b** Employ basic computer and information technology skills used in the drafting industry. STS.HS.6.4.B |

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| | **c** Employ ethical digital citizenship. STS.HS.6.4.C |
| **Analyze architectural styles across time.** STS.HS.6.5 | **a** Identify design principles, elements, and architectural styles. STS.HS.6.5.A |
| | **b** Identify the building materials, locations, and design that have historically influenced architecture. STS.HS.6.5.B |
| | **c** Identify the influence that historical buildings have on today's architecture. STS.HS.6.5.C |
| **Identify typical building design and construction methods and practices.** STS.HS.6.6 | **a** Identify terms and definitions commonly used in the architectural profession. STS.HS.6.6.A |
| | **b** Identify various digital drafting and modeling options (i.e., CAD/BIM). STS.HS.6.6.B |
| | **c** Identify the types of materials, their properties, and applications used in building construction. STS.HS.6.6.C |
| | **d** Identify different types of fasteners, adhesives, and finishes. STS.HS.6.6.D |
| **Communicate design solutions.** STS.HS.6.7 | **a** Identify common line types, symbols, and components that comprise architectural construction working drawings. STS.HS.6.7.A |
| | **b** Identify dimensions on working drawing. STS.HS.6.7.B |
| | **c** Create multi-page working drawings. STS.HS.6.7.C |
| | **d** Employ correct annotation of line type, section line labels, and dimensions. STS.HS.6.7.D |
| | **e** Create shaded and rendered presentation drawings. STS.HS.6.7.E |