Architectural Design Endorsement

Specifications, Competencies & Requirements

PURPOSE

This endorsement is meant for certified teachers interested in teaching **Architectural Design** courses. It attaches to a current Utah Educator License with a license area of concentration in **Secondary** or **CTE** Education.

Upon attachment of this endorsement to a Utah educator license, educators will be approved to teach the following USBE courses:

Architectural Design 1
Architectural Design 2
Architectural Design 3

ENDORSEMENT TYPES

Prerequisite

Demonstrate an understanding of Career and Technical Education basics.

CTE Knowledge

Associate Level Requirements

Applicants must complete **TWO** of the following competency requirements. The associate level endorsement is valid for up to three school years before it expires. Associate-level endorsements are non-renewable.

- Digital Construction & Building Systems
- Building Code
- Construction Plans and Document Reading
- Lab Safety
- CTSO Knowledge

Professional Level Requirements

The applicant must meet **ALL** the competency areas listed above for the professional level.

COMPETENCY DETAILS & DESCRIPTIONS

Prerequisite

1. CTE Knowledge

Demonstrate an understanding of CTE basics:

- Explain how CTE links learning to specific Utah industries and what its main goals are.
- Know the licenses and endorsements needed to teach specific CTE courses.
- Describe how CTE is organized into clusters and pathways at the state, district (LEA), and school levels, and how this helps students succeed after graduation.
- Locate and use the state's strands and standards in lesson plans.
- Explore CTE student organizations (CTSOs) and professional groups and explain how they support students and teachers.

- Explain how advisory boards, with industry members, make sure programs meet job market needs and maintain safe learning environments.
- Understand the basics of securing funding, planning for the future of the program, and participating in the state Program of Quality Review (PQR) to ensure program excellence.

*Select **one** of the following options:*

- **USBE Course:** CTE Orientation
- **Complete THREE years of full-time CTE Teaching in Utah**
- **Currently hold a professional-level CTE endorsement**

Endorsement Competencies

2. Digital Construction & Building Systems

Demonstrates proficiency in utilizing Building Information Modeling (BIM) and Computer-Aided Design (CAD) software for accurate and efficient digital representation, coupled with a comprehensive understanding of residential and basic commercial building construction methods, materials, and systems.

*Select **one** of the following options:*

- Degree in Architecture
- Architectural Design Technology Certificate (ex, UVU certificate program)
- Udemy Free Basic BIM Training: Introduction to BIM
- Onshape CAD Basics Learning Pathway

3. Building Code

Understand how residential buildings are built, including the different types of materials and methods used. Have a basic understanding of the International Residential Code (IRC).

*Select **one** of the following options:*

- Degree or certificate in Architecture (ex, Architectural Design Technology, Undergraduate Certificate UVU/Technology and Engineering Education BYU)
- Architectural Design Technology Certificate (ex, UVU certificate program)
- Occupational Experience: Work experience as a building inspector with certificates from ICC or standalone Certificates from ICC. Submit certificates with the application.

4. Construction Plans and Document Reading

Demonstrate skill in reading and creating blueprints, plans, views, bills of materials, estimations, and any other documentation used in the Architecture, Engineering, and Construction (AEC) industry.

*Select **one** of the following options:*

- Degree or certificate in Architecture (ex, Architectural Design Technology, Undergraduate Certificate UVU/Technology and Engineering Education BYU)
- Architectural Design Technology Certificate (ex, UVU certificate program)
- Print Reading Basic Training

5. Lab Safety

Demonstrate and implement comprehensive laboratory and shop safety procedures across all technical domains (construction, manufacturing, electronics, etc.) to ensure a safe learning and working environment.

*Select **one** of the following options:*

- Bachelor's degree in engineering, computer science, or manufacturing (ex, USU BS Technology & Engineering Education or BYU BS Technology & Engineering Studies)
- PRAXIS #5051 Technology Education
- OSHA Safety Certification
- Technology & Engineering Lab Safety Microcredential (Coming 2026)

6. CTSO Knowledge

Demonstrate Career and Technical Student Organization (CTSO) knowledge:

- **Help students lead:** Give students opportunities to build their leadership abilities and take charge.
- **Mentor students:** Offer guidance to help students set goals and overcome difficulties as they grow.
- **Manage the organization:** Coordinate meetings, events, and budgets, and handle administrative tasks smoothly.
- **Create helpful programs:** Develop activities that match the CTSO's goals of building leadership, exploring careers, and developing skills.
- **Communicate effectively:** Clearly talk with students, school leaders, and community members, and promote the CTSO.
- **Work with others:** Partner with teachers, businesses, and other organizations to create opportunities like internships and community service.
- **Advocate for CTE:** Promote Career and Technical Education and work to get the resources and recognition it needs.
- **Keep learning:** Stay up-to-date on CTSO management and trends in CTE.
- **Focus on student success:** Support students' interests and celebrate their accomplishments.

*Select **one** of the following options:*

- **Attend a CTSO Fall Leadership Conference:** Reflected on MIDAS transcripts.
- **USBE Course:** SkillsUSA Utah Advisor Training
- **USBE Microcredential:** Career & Technical Student Organizations (under development)