

Technology & Engineering Comprehensive Endorsement Application

Endorsement Application for the Utah State Board of Education

APPLICANT INFORMATION

Name:

CACTUS ID#:

Email:

PURPOSE

This endorsement is meant for certified teachers interested in teaching **Technology & Engineering** courses. It is attached to a current Utah Educator License with a concentration area in **Secondary** or **CTE** Education.

Prerequisite Requirement

CTE Knowledge

Associate Level Requirement

Complete **SIX** of the required competencies.

This endorsement is non-renewable and valid for up to three school years before it expires.

Professional Level Requirements

Complete **ALL** the competency areas.

ENDORSEMENT COMPETENCY AREAS

1. CTE Knowledge (REQUIRED)

Select one of the following options:

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

2. Digital Construction & Building 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

- ☐ 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

3. Residential Construction Trades

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
- ☐ USBE Microcredential: Residential Construction Trades
- ☐ BCCM 2010 - Framing I (Utah State University)
- ☐ Equivalent College Course: Transcripts showing passing grade of relevant course(s), and course description covering the required competency skills.
- ☐ DOPL B100 General Contractor License
- ☐ DOPL R100 Residential/Small Commercial Contractor License

4. Construction Estimating & Scheduling

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
- ☐ USBE Microcredential: Construction Estimating & Scheduling
- ☐ BCCM 2240 - Construction Estimating (Utah State University)
- ☐ Equivalent College Course: Transcripts showing passing grade of relevant course(s), and course description covering the required competency skills.
- ☐ DOPL B100 General Contractor License
- ☐ DOPL R100 Residential/Small Commercial Contractor License

5. Building Code

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.
- ☐ PRAXIS #5051 Technology Education

6. *Construction Plans and Document Reading*

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
- ☐ PRAXIS #5051 Technology Education

7. *Electrical Theory & Digital Electronics*

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
- ☐ SACA Certified Industry 4.0 Control Systems Specialist
- ☐ Skill Share Arduino Intro Course

8. *Electronic Components & Testing*

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
- ☐ Bachelor's degree in engineering/technology and engineering education
- ☐ SACA Certified Industry 4.0 Control Systems Specialist
- ☐ Skill Share Arduino Intro Course

9. *C-Based Programming*

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
- ☐ Automated Manufacturing Program from a Technical College
- ☐ SACA Certification Mtech
- ☐ Skillshare Introduction to Arduino: Creating Interactive Projects certificate
- ☐ Arduino for Makers: Intro to Microcontrollers

10. Engineering & Troubleshooting

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

11. Industrial Robotics

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

12. Engineering & Design

Select one of the following options:

- ☐ Bachelor's degree in engineering
- ☐ Complete a Drafting/Design program from a Technical College
- ☐ Solidworks CAD Design Professional (CSWP) Certification
- ☐ PRAXIS #5051 Technology Education

13. Assembly & Woodworking Drawings

Select one of the following options:

- ☐ Bachelor's degree in engineering
- ☐ Complete a Drafting/Design program from a Technical College
- ☐ Solidworks CAD Design Professional (CSWP) Certification
- ☐ PRAXIS #5051 Technology Education

14. Manufacturing/Production Systems

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

15. Lean Manufacturing

Select one of the following options:

- ☐ Hold a bachelor's degree in engineering or a directly related field (e.g., Manufacturing Engineering, computer science, or manufacturing, Technology & Engineering Education, or BYU BS Technology & Engineering Studies).
- ☐ Lean Manufacturing Bronze Certification
- ☐ Six Sigma Yellow Belt
- ☐ Advanced Manufacturing Undergraduate Certificate

- ☐ PRAXIS #5051 Technology Education

16. Machinery (Use and Maintenance)

Select one of the following options:

- ☐ Hold a bachelor's degree in engineering or a directly related field (e.g., Manufacturing Engineering).
- ☐ PRAXIS #5051 Technology Education
- ☐ Course work equivalent to: UVU CAW 140R, CAW 1170, CAW 2450
- ☐ Advanced Manufacturing Undergraduate Certificate

17. Computer-Aided Design and Manufacturing

Select one of the following options:

- ☐ Bachelor's degree in engineering
- ☐ Complete a Drafting/Design program from a Technical College
- ☐ Solidworks CAD Design Professional (CSWP) Certification
- ☐ PRAXIS #5051 Technology Education

18. Lab Safety

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
- ☐ Technology & Engineering Lab Safety Microcredential (Coming 2026)

19. CTSO Knowledge

Select one of the following options:

- ☐ Attend a CTSO Fall Leadership Conference
- ☐ USBE Course: SkillsUSA Utah Advisor Training
- ☐ USBE Microcredential: Career & Technical Student Organizations (under development)

APPLICATION SUBMISSION

Please submit the application online in the Utah Educator Licensing Application System, [Survey Monkey Apply](https://usbelicensing.smapply.us) (<https://usbelicensing.smapply.us>)