

Developing Professional Skills in CTE Toolkit

A Toolkit for Improving Student Skill Development

Revised October 2025



Contents

Developing Professional Skills in CTE Toolkit	3
Kristy Volesky.....	3
Section 1: What are Professionals Skills?	4
Benefits of Teaching Students Professional Skills	4
Where are Professional Skills Taught?.....	4
Section 2: Methods for Developing Professional Skills	5
Authentic Projects	5
Coaching from the Educator or Instructor	5
Preparing Students for Industry Partner Engagement	5
Agile Scrum Training	5
Industry Engagement.....	5
Section 3: Standards and Student Learning Outcomes	6
Standards – Secondary Students	6
Student Learning Outcomes – Postsecondary Students.....	6
Section 4: Assessing Student Professional Growth	7
Student Portfolio Artifacts	7
Section 5: Keys to Success with Student Professional Skill Development.....	7
Intentional: Teaching, Coaching & Assessment.....	7
Multiple Practice Opportunities	8
Staff Personalities and Professional Development	8
Getting Started with Professional Skills	8
CTSOs	8
Clearinghouse for Work-Based Learning.....	8
MBA Research	8
Advancing Professional Skill Development in CTE	9
Section 6: Additional Resources	9
AEA Learning Online Agile Scrum Training	9
Clearinghouse for Work-Based Learning.....	9
CTSOs Resources	9
Sample Programs Preparing Students with Professional Skills	9

Developing Professional Skills in CTE Toolkit

This toolkit supports student professional skill development in career and technical education (CTE) programs. CTE programs have the ability to prepare students for future success through thoughtful integration of professional skill development through authentic projects.

Prepared by:

Kristy Volesky

**Iowa Department of Education
Division of Community Colleges and Workforce Preparation
Grimes State Office Building
400 E. 14th St.
Des Moines, IA 50319-0146**

Phone: 515-281-8260

Fax: 515-242-5988

www.educateiowa.gov

With contributions from:

Ashlee Spannagel, Southeastern Community College
Chris Dzurick, Iowa Department of Education
Ethan Wiechmann, Cedar Valley CAPS
Jake Welchans, Clearinghouse for Work-Based Learning
Laura Williams, AEA Learning Online
Michelle Hill, Waukee APEX
Tim Brickley, Johnston High School
Trace Pickering and Laura Seyfer, Iowa Big

Updated by:

Jodie Smith

**Iowa Department of Education
Bureau of Career and Technical Education and Postsecondary Readiness
Grime State Office Building
400 E 14th St
Des Moines, IA 50319**

Section 1: What are Professionals Skills?

Professional skills are a set of abilities common across professional careers that assist with the success of the individual. Professional skills are considered transferable, meaning they are commonly used among many professions. Professional skills include, but are not limited to, the ability to work on a team, creative thinking, problem-solving, leadership and written verbal and non-verbal communication skills. Often professional skills are also referred to as transferable skills, soft skills, 21st Century Skills, etc. The term professional skills, has a positive response from both education and industry, therefore all references in this toolkit will be made using the term professional skills.

Benefits of Teaching Students Professional Skills

When given the opportunity to learn and develop professional skills in the safety of the classroom and through the coaching of a caring educator, students thrive. Students can see their growth, gain confidence and develop the skills necessary for a successful future. Industry needs professionals with the ability to communicate, problem solve, work effectively on a team, etc. When students have the ability to develop professional skills under the coaching supervision of an educator or instructor, the students are better equipped to learn from failure, develop grit and tackle the next challenge they are faced with.

Iowa needs professional education leaders to deliver opportunities for students to develop professional skills to benefit students and their communities.

Where are Professional Skills Taught?

Professional skills can be taught in a number of different courses or classrooms. Some of the most effective approaches to students developing professional skills have taken place in career and technical education (CTE). Many of the CTE classrooms have utilized an approach to offer a series of skill building opportunities, versus one project in the classroom. The most effective approach to building professional skills has been when the classroom uses authentic projects, meaning project-based learning with industry, for student learning and assessment. The use of authentic projects holds the student accountable for their skill development with the final project presented to the industry partner followed with authentic feedback.

In Iowa, the courses holding a series of authentic projects to develop student professional skills cover a vast array of career and technical education career pathways. There are no limits on which course a school district would like to provide the opportunity for students.

No special endorsements are required to teach professional



Section 2: Methods for Developing Professional Skills

Authentic Projects

As mentioned before, authentic projects are projects completed for an industry partner. When students work on projects for an industry partner, there is an expectation the final product is professional. Students understand their behaviors will need to reflect industry (professional) standards and regard the experience with a different lens than a classroom hypothetical project.

Authentic projects can derive from:

- Local Industry Partners
 - ◇ Use the industry partners on your CTE advisory council or other local industry partners to develop an authentic project for students.
- Career and Technical Student Organizations (CTSOs)
 - ◇ Although CTSO projects aren't necessarily for an industry partner, often the project may be adjusted to integrate an industry partner to create an authentic project.
- Clearinghouse for Work-Based Learning
 - ◇ The [Clearing House for Work-Based Learning](#) provides an inventory of authentic projects to make classroom implementation easier. The list of projects can be sorted by academic domain among other filters.

Coaching from the Educator or Instructor

Just as important as providing the authentic project for students to develop professional skills with industry, is the coaching from the educator or instructor throughout the learning process. Students are accustomed to the controlled environment of the classroom and the transition to understanding their work isn't just a project that the educator or instructor will review is one that requires coaching. The educator plays a pivotal role in coaching the student during the research and development portion of the project and switching to a supporting role during the presentation and feedback portion of the project. Students will need the support during the feedback process as they adjust to receiving critiquing feedback from industry that they may not be accustomed to receiving.

Preparing Students for Industry Partner Engagement

In preparation for upcoming authentic projects, you can prepare students by explaining skills for project management and expected behaviors during project development in the classroom and professional behavior during industry communication. There are a variety of ways to approach preparing students for industry partner engagement. Below are a few examples of resources.

Agile Scrum Training

[Agile Scrum](#) is a mindset and framework that various industries use to streamline project management. Using Agile Scrum components can be a support for your students to ensure projects stay on schedule and student teams work efficiently. AEA Learning Online provides free resources and professional learning on Agile Scrum.

Industry Engagement

To bring added value to expected student professional behavior and skills, consider engaging with industry professionals on the topic.

- Find a professional to speak to your students to emphasize the importance of professional behavior and skills along with their own experience and how those have aided in their professional success.
 - ◊ Use industry professionals on your advisory council to speak to your students.

Take advantage of professional skill workshops to engage students in a variety of opportunities to learn directly from industry professionals. Professional skill workshops can be customized to fit the needs of your students and often include professionals discussing successful behaviors, how to dress, expected communication skills, etc.

Section 3: Standards and Student Learning Outcomes

Standards – Secondary Students

Consider incorporating standards to assess student learning through professional skill attainment. Standards associated with employability skills provide a comprehensive list of professional skills to assess student growth.

- Employability Skills in the [Universal CTE Standards](#)
 - ◊ The Universal CTE Standards have been [crosswalked](#) with the Iowa Core 21st Century Skills.
 - ◊ Use identified employability skills standards outlined in the crosswalk document to incorporate the appropriate [CTE Standards](#).

Student Learning Outcomes – Postsecondary Students

Skills are identified as key outcomes in the [community college](#) work-based learning courses.

- WBL 100 – Exploring Careers
- WBL 110 – Employability Skills



Section 4: Assessing Student Professional Growth

Unlike technical skills, professional skill growth will look different for each student and should be evaluated with a differentiated approach. Given the need to differentiate student assessments on professional skills, some educators have found success by focusing on the growth of the student's skills versus a predetermined skill level for all students to achieve. Requiring the same skill attainment for all students is difficult to measure objectively and is unfair to students entering the experience at different skill levels.

To maintain an objective approach to assessing student professional skill growth, the educator or instructor should consider conferencing with the student at the start of the experience to develop a baseline of professional skills attained and goals for increasing their skills during the course or project. The educator-student conference should be led by the student. During the conference the student will assess their professional skill growth and identify support needed from the educator or instructor. The educator or instructor is then able to provide the appropriate coaching and positive statements to demonstrate support and encouragement. At appropriate intervals or "checkpoints" throughout the course, the educator or instructor and student should conference and complete another assessment. The conference reflections allow the student the opportunity to articulate their own growth and appropriate steps needed to continue to make progress. The final conference reflection should showcase the growth the student has made with portfolio artifacts to demonstrate the student's accomplishments.

With a focus on differentiated student growth, students are more likely to feel welcome to enrolling in the courses offering professional skill development opportunities. The differentiated approach increases the equity for all students to access the opportunity to develop professional skills.

Student Portfolio Artifacts

In order to ensure the reflection process captures and remains focused on developing important learning examples for professional skills, consider guiding students toward portfolio artifacts that capture a deeper understanding of professional skills.

Example portfolio artifact topics for students include:

- Adaptability
- Solving a Complex Problem
- Resiliency
- Articulate Communication
- Team Leader

Section 5: Keys to Success with Student Professional Skill Development

Intentional: Teaching, Coaching & Assessment

Educators and instructors successful with supporting student professional skill development are intentional with teaching, coaching and assessing students. Successful educators and instructors don't assume students will draw the connections or use industry feedback to make the necessary changes in their professional performance. Successful educators and instructors are intentional with all aspects of the learning process to provide the necessary support students need.

Successful educators and instructors intentionally:

- Teach concepts and provide classroom activities to prepare students for industry interactions
- Coach students throughout the project and communication process with industry
- Support student reflective assessments to understand the connections to industry feedback are made and incorporated as the course or project progresses

Multiple Practice Opportunities

Offering one opportunity to engage with industry is a great start for students to understand the professional skills needed when interacting with industry. If the expectation is for students to develop professional skills, multiple opportunities to engage with industry is vital. Every interaction with industry allows students the opportunity to practice their professional skills, receive valuable feedback and grow from the experience.

Staff Personalities and Professional Development

Working with industry professionals requires educators and instructors to approach classroom management and teaching differently. Successful programs prepare educators with professional development on how to engage with industry, coach students and manage courses that connect with industry. There are many different opportunities in Iowa that offer professional development to train educators. While there are costs associated with many professional development opportunities in Iowa, educators and instructors will find the investment worthwhile.

Getting Started with Professional Skills

If you are thinking of embedding professional skill development into your curriculum, getting started may seem overwhelming. Some programs in Iowa have special centers for the programs delivering professional skills, while others embed it into a singular course. Below are some strategies for getting started with professional skill development in your courses or programs.

CTSOs

Every student [Career and Technical Student Organizations CTSOs](#) recognized in Iowa offers curriculum with valuable student projects. These student projects can be connected to local industry partners (authentic projects and career-based service learning) to bring opportunities for students to engage with industry professionals and develop professional skills. Many competitive event projects assess student professional skills, elevating the value of developing professional skills through the preparation and execution of the project.

Clearinghouse for Work-Based Learning

If educators are looking for opportunities to replace current projects with authentic projects, using the free Project Board application on the [Clearinghouse for Work-Based Learning](#) website allows an instant implementation opportunity. Educators can search for projects by subject area, location, etc. allowing the opportunity to find the perfect project for students to begin developing professional skills.

MBA Research

Iowa is a member state with MBA Research which allows all Iowa educators and instructors to access select materials at no cost. Many of the free resources under the [work-based learning section](#) provide educators and instructors with activities to prepare students in professional skills. Some of the free classroom resources include preparation in: active listening skills, honest communications and business relationships, ethics, managing emotional reactions, managing stressful situations, self-understanding, teamwork and leadership and personality traits needed in business. Educators and

instructors in Iowa have free access to these resources and only need to [register \(no cost\) and log-in](#) to the resource portal.

Advancing Professional Skill Development in CTE

If your CTE program is interested in investing in a capstone class or pathway to develop professional skills, consider how you would like to structure the experience in your program. You may find in order for a student to be fully prepared for industry projects, the student will need prior coursework, knowledge or experiences. Make sure to thoughtfully plan out the pre-requisite courses, knowledge or experiences to only require what is necessary, ensure this is communicated to students (and parents) and regularly evaluate the prior experiences to ensure equitable student access to the course or program. The program pathways should be shared with stakeholders in a manner that makes sense to increase student participation throughout the entire pathway.

If developing out a program pathway with pre-requisite courses and experiences is not a direction you would like to take, consider building out one course to provide the ample experiences for students to practice professional skills. For example, you may choose a course and lengthen the experience to ensure the course standards or learning outcomes are taught while integrating in student authentic project experiences to provide ample opportunities for students to scaffold their learning from their experiences.

Section 6: Additional Resources

AEA Learning Online Agile Scrum Training

- The AEA Learning Online provides Agile scrum training for project management.
- To learn more, visit the [Agile Scrum webpage](#).

Clearinghouse for Work-Based Learning

- The Clearinghouse provides the Project Board application which contains authentic projects posted by industry partners.
- To learn more, visit the [Clearinghouse for Work-Based Learning website](#).

CTSOs Resources

- CTSOs provide structured competitive projects for all CTE areas and with the addition of an industry partner they can be transformed into authentic projects.
- To learn more, visit the [Department's CTSO webpage](#).

Sample Programs Preparing Students with Professional Skills

- The [Cedar Valley CAPS Program](#) is a community-based program with professional skills training and career exploration through authentic projects and experiences.
- [Entrepreneurship](#) as a year-long class to add in more industry engagement experiences to build professional skills.
- [Iowa BIG](#) provides students with authentic projects and opportunities to take multiple core and elective courses to build leadership and professional skills.
- [Southeastern Community College's Early Childhood Education Center](#) provides students with instructor support and hands-on projects and activities to develop professional skills.

- [Waukee APEX](#) provides a variety of career pathways with focused authentic projects to develop professional and technical skills.