What is career and technical education (CTE)?

Career and technical education (CTE) is a secondary or postsecondary educational pathway that provides students with hands-on training while preparing them for an occupation upon graduation. CTE programs concentrate on developing a specific skill, often leading to a certificate or diploma, and are designed to get students into the workforce quickly. CTE is divided into 16 career clusters that apply to different high-demand careers.

Is CTE right for you?

Career and technical education (CTE) involves educational programs that provide students with the technical and professional skills to succeed in the workplace and throughout their careers. CTE programs are designed to meet the needs of employers while providing pathways to lifelong learning and family-sustaining careers, often taught through hands-on learning and on-the-job experience. CTE has undergone a transformation and the modern idea of CTE gives students a “both/and” educational pathway and prepares students to keep up with a rapid-paced, high-tech world. CTE opportunities build equity in the education system because not all students learn in the same manner. Students who struggle sitting at a desk reading a textbook may do better learning in an environment where they can touch and manipulate equipment they will go on to use in their career of choice. Postsecondary CTE is shorter than a four-year degree and often means students get into a career quicker and with less debt. CTE isn’t the right option for everyone, but it can be the right path for students interested in getting into the workforce quickly or those interested in certain programs.

Students who are unsure about what career is right for them may want to check out the following interest assessment resource page at [www.pathwayswv.org/career-planning.php](http://www.pathwayswv.org/career-planning.php).

By completing this assessment and using the resources identified on this page, students will have a better understanding of what career and educational pathway is right for them.

### Examples of CTE programs

- Medical Assistant
- Dental Assistant
- Surgical Technician
- Pharmacy Technician
- Heating, Ventilation and Air Conditioning (HVAC) Technician
- Electrical Technician
- Computer IT
- Construction

### CTE clusters of high-demand careers
Potential CTE career path opportunities and commitment

CTE career paths work well for students who are interested in obtaining specific skills that afford them the opportunity to quickly enter the workforce in a high-demand career. Once the student is in the workforce, the student may elect to “stack credentials” to afford them additional opportunities within their career path of interest. Here are three examples of CTE program options along with projected career paths and salaries.

**NURSING CAREER AND EDUCATION PATH**

- Penny works in the medical field while making money, gaining experience in health care delivery and pursuing additional education programs.
- Penny took the CTE path and completed a nine-month medical assistant diploma program and started earning an annual salary of $35,000.
- Penny is now a registered nurse (RN) after completing a 24-month associate degree and is now earning $73,000 annually.

**HVAC CAREER AND EDUCATION PATH**

- Josh works in the HVAC field while making money, gaining experience in HVAC installation and pursuing additional education programs.
- Josh took the CTE path and completed a 6-12-month HVAC refrigeration technician certificate program and started earning an annual salary of $49,000.
- Josh is now an HVAC supervisor after completing a four-year bachelor’s degree and is now earning $72,000 annually.

**IT CAREER AND EDUCATION PATH**

- Trevor works in the IT field while making money, gaining experience in network administration and pursuing additional education programs.
- Trevor took the CTE path and completed a 12-month information technology technician certificate program and started earning an annual salary of $55,000.
- Trevor is now a network administrator after completing a two-year associate degree and is now earning $83,000 annually.
Empowering Gen Z teens to Question The Quo when it comes to education

The status quo says take a certain path, go to a certain kind of college and take on a certain amount of debt. But what if you weren’t so certain? What if you wanted a different path to start your career? A faster and less expensive path? What if CTE was that path? Turns out, high schoolers are considering CTE as a path that’s right for them. To learn more, visit our website at http://questionthequo.org.

WHY CAREER AND TECHNICAL EDUCATION

72% of students said their top college worry was paying back student debt. 1
80% of the top careers students want are offered through CTE. 1
87% of students think true success is having a job that matches their passion. 2

WHAT TEENS THINK ABOUT THEIR FUTURE

52% of students said they were open to something other than a four-year college. 2
74% of students think a career-based education makes sense today. 1
65% of students said they are confident in their future and they just need to find the right path. 2

THE EMPLOYMENT OUTLOOK FOR CTE CAREERS LOOKS BRIGHT

Approximately 1.7 million job openings are projected between 2019-2029 in occupations that require some education beyond a high school diploma but less than a bachelor’s degree. 3
Healthcare occupations and those associated with healthcare are expected to account for seven of the 30 fastest growing occupations between 2020-2030. 4
Those studying to be a computer user support specialist may be more likely to get a job in their field quickly because there are expected to be 53,600 new computer user support specialists by 2029. 5
With a projected growth of 6% by 2030, the median annual wage for construction and extraction occupations in 2020 was $48,610. 5

---

1 ECMC Group/VICE Media Question The Quo survey of 1,025 high school students, May 14-20, 2020
2 ECMC Group/VICE Media Question The Quo survey of 1,177 high school students, Feb. 25-March 2, 2020
Choosing the right CTE program (or college)

FINDING THE RIGHT CTE CENTER (OR COLLEGE)

High school students should check with their high school counselor about CTE programs available at their school or within the school district. If you are interested in a specific program not offered at your school, there may be an option to transfer to another school within your district that does offer it.

Students should consider the following when reviewing their options:

- Will I be able to complete this credential or degree prior to high school graduation? If not, how will I continue my education?
- Where will I continue my education?
- How will I pay for it?

Postsecondary students can check with their local school district, community college, local nonprofit career school, local for-profit career school or online learning about the various CTE programs available. If you are unemployed (or under-employed) and considering returning to school, speak with your local workforce development agency about the Workforce Innovation and Opportunity Act (WIOA). They may be able to further assist you in finding the right fit.

Students should consider the following when reviewing their options:

- What are the minimum education requirements (i.e., high school diploma, etc.) to enroll in the institution and/or program?
- Is the institution accredited? If so, by what agency? You can learn more about accreditation online at www.ed.gov/accreditation.
- Does this institution offer state-of-the-art equipment and training?
  - Take a tour; speak to the instructors; sit in on a class to observe and interact with other students.
- What is the cost of the program?
  - Consider the full cost of attendance (tuition, fees, books, housing, transportation and other miscellaneous education-related expenses).

CTE programs are available to both secondary and postsecondary students. During the 2016-2017 academic year, nearly 98% of public school districts offered CTE programs to high school students. 77% of these programs included on-the-job training, internships, practicums, clinical experiences or cooperative education. 73% of these programs offered dual credit, which affords high school students the opportunity to earn college credit while in high school.

Postsecondary students can also enroll in CTE programs that are available at their local district technical school or local community college. Postsecondary-based CTE programs also include on-the-job training, internships, practicums, clinical experiences or cooperative education. Students enrolled in postsecondary-based CTE programs have the option to earn a credential and/or continue their education to earn an associate degree. An associate degree can then open the door to other degree types.

- Does the program offer a credential or degree?
  - Will this credential or degree be sufficient to take any required licensing exams?
  - Will this credential or degree be sufficient to become employed in your career of choice?
  - Does the credential or degree include on-the-job training, internships, practicums, clinical experiences or cooperative education?
  - Will I be able to find a job once I graduate and earn a family-wage income?
  - View the U.S. Bureau of Labor Statistics’ Occupational Outlook handbook to learn about more than 1,500 jobs at www.bls.gov/oco.

- Can you work and attend school (including internship period) to offset some of the expenses? If you cannot work and attend school simultaneously, what type of financial aid can you apply for, and is it sufficient to cover your educational and monthly living expenses?

Use the following worksheet to help you choose the right CTE program and/or center:

www.ecmc.org/students/documents/ChoosingtheRightCollege.pdf.

CTE FINANCIAL AID

See the "Navigating financial aid" section within the Opportunities guide to plan and prepare for the costs associated with pursuing a CTE path. View the PDF at www.ecmc.org/opportunities.

Opportunities in Career and Technical Education is a supplemental publication of the Opportunities Preparing for College Guide and Workbook. This free college planning publication provides students and families with important information and tools to guide their pursuit of postsecondary education. These books are available in English and Spanish. Full PDFs of each Opportunities guide can be downloaded at www.ecmc.org/opportunities.