

CAREER EXPLORATION FAQ

This collection of frequently asked questions is designed to bridge the knowledge gap between general education and career and technical education (CTE). These short, targeted questions provide a basic overview of CTE needed by teachers and counselors as they engage students in career conversations, exploration and development of their Individual Learning Plan.

TABLE OF CONTENTS

Career Clusters FAQs	2
Career & Technical Student Organizations (CTSOs) FAQs	4
Dual & Articulated Credit FAQs	6
Industry Certifications FAQs	7
Work-Based Learning FAQs	8
Glossary	10

ADDITIONAL RESOURCES

- Elementary School Career Resources
https://education.ky.gov/CTE/cter/Pages/ES_Career-Res.aspx
- Middle School Career Resources
https://education.ky.gov/CTE/cter/Pages/MS_Career-Res.aspx
- CTE Basics**
<https://staffkyschools.sharepoint.com/sites/kde/kyctebasics>

**Use your district login to access the site. Please contact the KETS Service Desk if you have difficulty.

- (866) 538-7435 (toll free)
- ketshelp@education.ky.gov
- Hours of Operation: Monday - Friday 7:30 AM - 5:00 PM Eastern

CAREER EXPLORATION FAQ

Career Clusters FAQ

What are Career Clusters?

- **Career Clusters** are a framework that serves as an organizing tool for career and technical education (CTE) programs, curriculum design and instruction.
- There are **16 Career Clusters** that represent virtually every career opportunity that falls within today's public and private workforce sectors. This arrangement is used by learners to navigate their way to greater success in college and career.

What are Career Pathways?

- A **Career Pathway** is a roadmap leading to a chosen career and includes:
 - Occupations within the pathway;
 - General and technical courses for both secondary and postsecondary;
 - Dual and articulated credit opportunities;
 - Related industry certificates, apprenticeships, associates and bachelor's degrees; and
 - Entry and exit points for semi-, mid- and high-level skilled careers to support life-long learning.

Why do we need Career Clusters and Career Pathways?

- Career development has evolved from the **vocational education** framework of the past to today's **career/technical education** framework.

Vocational (Then)	Career/Technical (Now)
<ul style="list-style-type: none"> • For a few students • For a few "jobs" • 6-7 program areas • In lieu of academics • Less rigorous • High school focused 	<ul style="list-style-type: none"> • For ALL students • For ALL "careers" • 16 clusters representing more than 80 pathways • Aligns with and supports academics • Requires highly specialized knowledge/skills set by industry • High school, postsecondary and industry partnerships

How are Career Clusters used?

- Career Clusters allow students to explore a wide variety of careers related to their skills and interests. Each cluster includes a broad range of specialization, from entry-level through post-doctoral studies.

How are Career Pathways used?

- Career Pathways support the development of a students' Individual Learning Plan by listing both general and technical courses and opportunities for earning dual/articulated credit, apprenticeships and industry certificates in high school. Educational degrees and industry credentials are often stackable, and individuals often move between the world of work and education to fulfill individual goals. Career Pathways provide a tool to navigate these options based on the individual needs of students and show the multiple entry and exit points into the postsecondary and working worlds.

CAREER EXPLORATION FAQ

ADVANCE CTE CAREER CLUSTERS and CAREER PATHWAYS

Agriculture, Food & Natural Resources

- Agribusiness Systems
- Animal Systems
- Environmental Service Systems
- Food Products & Processing Systems
- Natural Resources Systems
- Plant Systems
- Power, Structural & Technical Systems

Architecture & Construction

- Construction
- Design/Pre-Construction
- Maintenance/Operations

Arts, A/V Technology & Communications

- A/V Technology & Film
- Journalism & Broadcasting
- Performing Arts
- Printing Technology
- Telecommunications
- Visual Arts

Business Management & Administration

- Administrative Support
- Business Information Management
- General Management
- Human Resources Management
- Operations Management

Education & Training

- Administration & Administrative Support
- Professional Support Services
- Teaching/Training

Finance

- Accounting
- Banking Services
- Business Finance
- Insurance
- Securities & Investments

Government & Public Administration

- Foreign Service
- Governance
- National Security
- Planning
- Public Management & Administration
- Regulation
- Revenue & Taxation

Health Sciences

- Biotechnology Research & Development
- Diagnostic Services
- Health Informatics
- Support Services
- Therapeutic Services

Hospitality & Tourism

- Lodging
- Recreation, Amusements & Attractions
- Restaurants & Food/Beverage Services
- Travel & Tourism

Human Services

- Consumer Services
- Counseling & Mental Health Services
- Early Childhood Development & Services
- Family & Community Services
- Personal Care Services

Information Technology

- Information Support & Services
- Network Systems
- Programming & Software Development
- Web & Digital Communications

Law, Public Safety, Corrections & Security

- Correction Services
- Emergency & Fire Management Services
- Law Enforcement Services
- Legal Services
- Security & Protective Services

Manufacturing

- Health, Safety & Environmental Assurance
- Logistics & Inventory Control
- Maintenance, Installation & Repair
- Manufacturing Production Process Dev.
- Production
- Quality Assurance

Marketing

- Marketing Communications
- Marketing Management
- Marketing Research
- Merchandising
- Professional Sales

Science, Technology, Engineering & Mathematics

- Engineering & Technology
- Science & Mathematics

Transportation, Distribution & Logistics

- Facility & Mobile Equipment Maintenance
- Health, Safety & Environmental Management
- Logistics Planning & Management Services
- Sales & Service
- Transportation Operations
- Transportation Systems/Infrastructure
- Planning, Management & Regulation
- Warehousing & Distribution Center Operations

Career & Technical Student Organizations (CTSOs) FAQ

What are Career & Technical Student Organizations (CTSOs)?

- Career and Technical Student Organizations (CTSO) are extracurricular groups for students in Career and Technical Education (CTE) classes. They provide opportunities to develop leadership and technical skills by participating in activities, events and competitive events at the local, regional, state and national levels.

What are the benefits of CTSOs?

- Students who participate in CTSOs have higher levels of academic engagement motivations, civic engagement, career self-efficacy and employability skills than other students.
- According to the National Research Center of Career and Technical Education, participating in leadership and development activities in a CTSO raises students' educational aspirations.
- Students who participate in a CTSO in 10th grade have a higher grade point average and are more likely to be enrolled in college at 21 than other students.

What are the CTSOs offered in Kentucky?



DECA

Distributive Education Clubs of America prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe.



Educators Rising

Educators Rising Kentucky, formerly known as Future Educators of America, provides opportunities for high school students to explore teaching and develop the necessary skills and knowledge to take their first steps on the path to accomplished teaching.



FBLA

Future Business Leaders of America inspires and prepares students to become community-minded business leaders in a global society through relevant career preparation and leadership experiences.

CAREER EXPLORATION FAQ



FCCLA

Family, Career and Community Leaders of America offers members the opportunity to expand their leadership potential and develop skills for life. It is the only CTSO with family as its central focus and is integrated into Family and Consumer Sciences education.



FFA

National FFA Organization is a student-led organization whose mission is to make a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.



HOSA

Health Occupation Students of America promotes career opportunities in the health care industry and strives to enhance the delivery of quality health care to all people.



SkillsUSA

SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce by preparing students for careers in trade, technical and skilled service (including health) occupations.



TSA

Technology Student Leadership enhances personal development, leadership and career opportunities in science, technology, engineering, and math (STEM), through intracurricular activities, competitions and related programs.

Dual & Articulated Credit FAQ

What is dual credit?

- In dual credit, a student is enrolled in a course that allows him or her to earn high school and college credit at the same time. This course may be taught on a college/high school campus or online, but it will be in conjunction with a college or university. Grades for dual credit courses are recorded on both the high school and college transcript.

What are Advanced Placement (AP) courses?

- AP courses are opportunities to earn college credit while in high school. To earn credit in an AP class, students must pass an end-of-course (AP) exam.

What is articulated credit?

- Articulated credit is awarded to a student who successfully completes a career and technical course after they enroll at a participating postsecondary institution.

What should students know about dual, articulated or AP courses?

- Students are responsible for their own learning and expectations are usually higher. Extra credit, make up work and frequent reminders usually don't exist in these courses.
- Students taking dual credit courses are creating a transcript or permanent academic record that will follow them into the future.
- Eligibility for financial aid usually depends on passing grades.
- Earning too many dual credits beyond those required for their degree or major may jeopardize their financial aid.

	DUAL CREDIT	ARTICULATED CREDIT	ADVANCED PLACEMENT
Courses	Meets high school requirements toward graduation.	Meets high school requirements toward graduation.	Meets high school requirements toward graduation.
Affiliation	Students are enrolled at a Kentucky postsecondary institution while in high school.	Affiliation based on local and/or state articulation agreements.	No affiliation to any university.
Grades	Grades become a part of the student's official college transcript.	Grades become a part of the official college transcript for students meeting requirements of the postsecondary institution.	High school grade does not appear on college transcript.
Credit	Upon successful completion, students receive college credit.	Upon successful completion, students receive college credit IF they attend the participating institution.	Earning college credit depends upon passing the AP exam.
Cost Savings	Students taking a dual credit course with a participating postsecondary institution may have reduced tuition rates.	Students taking an articulated credit course with a participating postsecondary institution may have reduced tuition rates.	Potential to save tuition costs if student passes the AP exam.

Industry Certifications FAQ

What are industry certifications?

- An industry certification is evidence of skills or knowledge related to an occupation, industry or technology. They are recognized by business and industry at the local, state or national level and are required for a wide variety of occupations. To earn a certification, students need to enroll in related courses and usually need to pass a test.

What options are available for industry certifications?

- Kentucky uses a clearly defined process to make sure industry certificates are practical, relevant and align with Career Pathways. Information from local workforce investment boards, the Kentucky Workforce Innovation Board and other business and industry groups are used to identify and create a valid list of industry certifications. Schools and districts use this list to determine the certifications to offer that best meet the needs of students and stakeholder.

How do you choose an industry certification?

- Industry certificates are specific to Career Pathways or programs of study. Before choosing a program of study, middle school students should have opportunities to explore interests, skills and abilities. Identifying these are critical to creating an [Individual Learning Plan](#) to guide a student's choice of courses at the high school level.

KY PROGRAM OF STUDIES	SAMPLE INDUSTRY CERTIFICATES
Agricultural Education	iCEV Elanco Fundamentals of Animal Science
Business & Marketing Education	ASK – Fundamental Business Concepts
Construction Technology	TRACK Pre-Apprenticeship Certification
Education & Training	AAFCS Pre-PAC Education Fundamentals
Engineering Technology	Autodesk AutoCAD Certified User
Family & Consumer Sciences	Child Development Associate
Health Science	PTCB Certified Pharmacy Technician
Information Technology	Certiport Digital Literacy IC3
Law & Public Safety	First Responder State Certification
Manufacturing Technology	NIMS Machine Tool Certification
Media Arts	Adobe Certified Associate: Programmer
Transportation Education	ASE Student Certification Automotive Maintenance and Light Repair

Work-Based Learning FAQ

What is work-based learning?

- Work-based learning (WBL) is an effective teaching approach used to engage students in real-life occupational experiences. It incorporates structured, work-based learning activities into the curriculum, allowing a student to apply knowledge and skills learned in class and connect these learning experiences in the workplace. Work-based learning provides students with the opportunity to engage and interact with employers while learning to demonstrate essential employability and technical skills necessary for today's workforce.

What options are available for Work-Based Learning?

- **Service Learning**
Service learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities.
- **Mentoring**
Mentoring is a component of work-based learning in which a volunteer from the business/industrial community helps students become aware of career opportunities and work ethics in a one-to-one relationship that goes beyond the formal obligations of a teaching or supervisory role.
- **Shadowing**
Shadowing is learning through observation and is a way to form partnerships between employers and the local schools. Shadowing is an opportunity for a student to spend a limited amount of time with an individual in a chosen occupation in order to become familiar with the duties associated with and the physical setting of the occupation, as well as the compatibility of the occupation with his or her own career goals.
- **Entrepreneurship**
Entrepreneurship education allows students to develop a deeper understanding of economic principles and to apply classroom learning by organizing and operating a business enterprise. An entrepreneurship education program should involve students developing individual projects in which they assume all risks in expectation of gaining a profit and/or further knowledge. An entrepreneurship program may be a component of a specific course within the curriculum or be a stand-alone course for credit. Entrepreneurship education may be offered in any career and technical education program.
- **School-Based Enterprises**
A school-based enterprise is a simulated or actual business conducted within a school. It is designed to replicate a specific business or segment of an industry and assist students in acquiring work experience related to their chosen Career Cluster.

CAREER EXPLORATION FAQ

- **Internship**

A student internship is a type of work-based experience learning program for high school students who have completed extensive school-based preparation relating to an identified area of career and academic interest in their Individual Learning Plan (ILP). Internships are usually one-time experiences which should lead to course credit and/or pay.

- **Cooperative Education**

Cooperative education is a paid educational program consisting of in-school instruction combined with program related on-the-job work experience in a business or industrial establishment. These are planned experiences supervised by the school and the employer to ensure that each phase contributes to the student's ILP and Career Pathway.

- **Apprenticeship**

Apprentice means a worker at least 16 years old, except where a higher minimum age standard is otherwise fixed by law, who is employed to learn an apprenticeable occupation, which:

1. Is customarily learned in a practical way through a structured, systematic program of supervised training on the job;
2. Is clearly identified and commonly recognized or accepted throughout an industry;
3. Requires 2,000 or more work hours of work experience to learn;
4. Requires related instruction to supplement the on-the-job experience training;
5. Involves manual, mechanical and/or technical skills applicable in like occupations throughout an industry; and
6. Is recognized by the registrant entity and/or the U.S. Office of Apprenticeship as meeting the five criteria listed above.

What are the legal issues associated with WBL?

- It is important to know and understand state and federal statutes and regulations that protect various aspects of the employment relationship, including wage and hour laws, child labor laws, safety and health laws, and workers' compensation.

It is the responsibility of each administrator, principal, teacher or director to be aware of and in compliance with all legal aspects related to student employment. It is the direct responsibility of the teacher/coordinators to promote compliance with all state and federal laws and regulations when placing students in work-based programs.

Where can I find additional information and resources?

- The [Kentucky Work-Based Learning Manual](#) provides detailed information regarding legal issues and implementation, along with sample forms and agreements for each of the WBL options.

GLOSSARY

apprenticeship	<p>“Apprentice” means a worker at least 16 years old, except where a higher minimum age standard is otherwise fixed by law, who is employed to learn an apprenticeable occupation, which:</p> <ol style="list-style-type: none">1. Is customarily learned in a practical way through a structured, systematic program of supervised training on the job;2. Is clearly identified and commonly recognized or accepted throughout an industry;3. Requires 2,000 or more work hours of work experience to learn;4. Requires related instruction to supplement the on-the-job experience training;5. Involves manual, mechanical and/or technical skills applicable in like occupations throughout an industry; and6. Is recognized by the registrant entity and/or the U.S. Office of Apprenticeship as meeting the foregoing five criteria.
articulated credit	<p>Articulated credit is awarded to a student for high school work after they enroll at a postsecondary institution providing a set of requirements are met.</p>
career connection	<p>Career connections are any instructional routines, strategies or activities used to connect academic content and skills to real-world careers. Connections may include a career-related scenario or task, video, guest speaker, student research, etc.</p>
career cluster	<p>Career Clusters are a framework that serves as an organizing tool for career technical education (CTE) programs, curriculum design and instruction. There are 16 Career Clusters that represent more than 80 Career Pathways to help learners navigate their way to greater success in college and career.</p>
career inventory	<p>A career inventory is a survey designed to identify interests, skills and aptitudes and match the user to potential career pathways.</p>
career pathway	<p>A Career Pathway is a roadmap leading to a chosen career and includes:</p> <ul style="list-style-type: none">• Occupations within the pathway;• General and technical courses for both secondary and postsecondary;• Dual and articulated credit opportunities;• Related industry certificates, apprenticeships, associates and bachelor’s degrees; and• Entry and exit points for semi-, mid- and high-level skilled careers to support life-long learning.
clinical rotations	<p>Clinical rotations are a form of work-based learning for students enrolled in a health care program. It allows students to develop skills related to their program of study.</p>
cooperative education	<p>Cooperative education is a paid educational program consisting of in-school instruction combined with program related on-the-job work experience in a business or industrial establishment. These are planned experiences supervised by the school and the employer to ensure that each phase contributes to the student's Individual Learning Plan (ILP) and Career Pathway.</p>

CAREER EXPLORATION FAQ

dual credit	In dual credit, a student is enrolled in a course that allows him/her to earn high school credit and college credit simultaneously. This course may be taught on a college campus or on a high school campus, but it will be in conjunction with a college or university.
entrepreneurship	Entrepreneurship education allows students to develop a deeper understanding of economic principles and to apply classroom learning by organizing and operating a business enterprise. An entrepreneurship education program should involve students developing individual entrepreneurship projects in which they assume all risks in expectation of gaining a profit and/or further knowledge. An entrepreneurship program may be a component of a specific course within the curriculum or be a stand-alone course for credit. Entrepreneurship education may be offered in any career and technical education program.
exploratory task	Exploratory tasks are classroom activities that allow students to experience skills, knowledge and aptitudes related to specific career pathways.
ILP	Individual Learning Plan is a planning tool for students in grades 6-12 designed to guide educational decisions based on the interests and plans of the individual.
industry certificate	Industry certifications are credentials recognized by business and industry that demonstrate mastery of necessary knowledge and/or skills.
internship	A student internship is a type of work-based experience learning program for high school students who have completed extensive school-based preparation relating to an identified area of career and academic interest in the Individual Learning Plan. Internships are usually one-time experiences that should lead to course credit and/or pay.
job shadow	Shadowing is learning through observation and is a way to form partnerships between employers and the local schools. Shadowing is an opportunity for a student to spend a limited amount of time with an individual in a chosen occupation in order to become familiar with the duties associated with that occupation, the physical setting of the occupation and the compatibility of the occupation with his or her own career goals.
mentoring	Mentoring is a component of work-based learning in which a volunteer from the business/industrial community helps students become aware of career opportunities and work ethics in a one-to-one relationship that goes beyond the formal obligations of a teaching or supervisory role.
program of study	A program of studies for each career pathway is a coherent, unduplicated sequence of rigorous academic and career/technical courses, including dual credit opportunities, leading to postsecondary degrees and industry-recognized certifications and/or licensures.
school-based enterprise	A school-based enterprise (SBE) is a simulated or actual business conducted within a school. It is designed to replicate a specific business or segment of an industry and assist students in acquiring work experience related to their chosen career cluster.
service learning	Service learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities.

CAREER EXPLORATION FAQ

stakeholder	An individual who engages in or has a vested interest in career and technical education.
TRACK	Tech Ready Apprentices for Careers in Kentucky
work-based learning	Work-based learning is an effective teaching approach used to engage students in real-life occupational experiences. It incorporates structured, work-based learning activities into the curriculum, allowing a student to apply knowledge and skills learned in class and connect these learning experiences in the workplace. Work-based learning provides students with the opportunity to engage and interact with employers while learning to demonstrate essential employability and technical skills necessary for today's workforce.