Leading the Transformation

Career and Technical Education Agenda for Future Achievement

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The Kentucky Association
for Career and Technical Education
www.kacteonline.org

'97 percent of all high school students take at least one CTE course.'

-Troy Justesen, Assistant Secretary
United States Department of Education
Office of Adult and Vocational Education

CTE (Career and Technical Education) programs are integral to the transformation of the American high school.

-John Bailey
Gates Foundation

CTE — Career and Technical Education

The Kentucky Association of Career and Technical Education (KACTE) has among its primary goals the support of Career and Technical Education (CTE) in the Commonwealth. The mission of CTE is to:

☞**Prepare students in the Commonwealth for meaningful high-skill, high-wage and high-demand careers and advanced training or education.**

☞**Support high school transformation and redesign efforts by:**

Modeling evidence-based educational methodologies to engage learners in rigorous, hands-on applied academics supporting a variety of learning styles.

Reinforcing the mathematics, science and reading content of academic courses in the CTE curriculum.

Developing and teaching interdisciplinary and applied secondary mathematics and science CTE courses that count as mathematics and science graduation requirements.

Developing and implementing career pathways to include a sequence of secondary and postsecondary courses providing seamless transitions to postsecondary education and the opportunity for students to earn industry certification and postsecondary credentials.

☞**Respond to the needs of Kentucky's business and industry sector by developing secondary and postsecondary curriculums and worker training programs.**

☞**Assist in the state's economic development efforts by collaborating with representatives of business and industry to determine and develop needed skill standards and to implement educational programs designed to impart those skills to future workers.**

An Agenda for Transformation

TRANSITIONS

The Commonwealth's CTE institutions have taken great strides in developing a seamless system of transition for students moving from secondary to postsecondary education. This seamless transition allows students to pursue career training without having to repeat equivalent courses they already have taken, saving them time and tuition.

The state's CTE institutions should be encouraged to continue this vital work and given all the resources needed for further advancement. The continued development of articulation agreements benefits students with efficient, effective education and results in more citizens trained for high-skill, high-wage and high-demand positions. Examples of such cooperative agreements are those being implemented among the Office of Career and Technical Education, Division of Career and Technical Education and the Kentucky Community and Technical College System regarding career pathways. In addition, the availability of dual-credit and related opportunities should be communicated to all students as they are guided in the development of their Individual Learning Plans.

KACTE recommends recognition of educational attainment from accredited institutions in meeting requirements for occupational licensing and regulation, such as those for becoming a licensed electrician.

PROGRAMS

KACTE stresses the importance of assuring state CTE agencies are ready to develop and implement new and innovative educational programs based on evidence-based educational methodologies in response to the emerging needs of business and industry in the state. In addition, **these agencies must have the resources they need to develop and implement cutting-edge CTE approaches that engage and energize students by connecting coursework and real-world career outcomes.**

GUIDANCE

Many secondary students and their parents are unaware of the many and varied career options available to them through CTE. To address this problem, **KACTE recommends all area technology centers have their own guidance counselor**. At the very least, existing high school counseling staff need to be made aware of the many opportunities and career pathways available to students through CTE and to be able to guide students interested in CTE through their Individual Learning Plans. Individual academic planning based around career clusters or career interest motivates students by connecting coursework and career goals. Students with specific and realistic career aspirations are better motivated to achieve and more engaged with their studies because they understand the connection between academics and the world of work.

To help with CTE career planning, counseling personnel need access to resources—such as labor market data—to guide students through career exploration and planning. **Each student at all educational institutions should have access to quality career guidance.** An additional concern is many secondary counselors are inundated with administering assessment programs and need some relief from those duties so they can provide more guidance for students. Guidance counselors receive rigorous training in advising students and need to be able to make that a priority.

ACCOUNTABILITY/TESTING

Academic and technical assessments are essential to measuring and guiding educational progress. One of the difficulties in assessing outcomes for a large population is a diverse student body will be composed of individuals with varied career goals and aspirations. While all students should prepare for postsecondary education should they decide to pursue it, the very diversity of career aspirations implies there can be a number of successful educational outcomes. **Educational assessment could be better balanced by giving more emphasis to technical skill attainment, the extent of academic integration, provisions for a smooth transition between educational levels, and graduation rates.**

INTEGRATION OF ACADEMIC CONTENT

The integration of academics and CTE coursework is a major focus of KACTE. The CTE model of career-relevant, experiential education engages students in their coursework in ways not always possible in traditional academic classroom instruction. At the same time, however, the ever increasing requirements for high school graduation make it difficult for students to study CTE in high school. It is especially difficult for students to take enough classes to receive industry standard certification. **KACTE recommends the development of interdisciplinary applied-academics courses** (such as Math-in-CTE and construction geometry as examples of applying mathematics, science and technical reading) for which students will be awarded credit toward mathematics, science or English graduation requirements.

PROFESSIONAL DEVELOPMENT

KACTE recommends all high school counselors receive professional development regarding the opportunities for students in CTE and in integrating CTE in students' Individual Learning Plans. As well, individual state CTE agencies (such as the Office of Career and Technical Education, Kentucky Department of Education's Division of Career and Technical Education, and the Kentucky Community and Technical College System) must be adequately funded for professional development so career and technical educators are prepared to teach to occupational skill standards and help students make informed career decisions.

SPECIAL POPULATIONS

A major goal of CTE is to serve all interested students. To achieve this goal, all state CTE organizations must have the resources needed to eliminate barriers preventing the participation of special needs students. For instance, **CTE services to students with special needs would be greatly enhanced by more effective communication between CTE teachers and special needs staff by establishing a liaison type position to act as an information bridge between a school district's counseling staff and CTE.** KACTE recommends the Department of Education require districts involve a representative from the area technology centers or career and technical centers in each pre-placement Admissions and Release Committee (ARC) meeting.

In addition to imparting technical skills, the applied-knowledge approach of the CTE curriculum can offer a means of adding relevance to traditional academic mathematics and science instruction for a diverse student population with varying learning styles, including students with special needs.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Career and Technical Student Organizations (CTSOs) include Future Business Leaders of America (FBLA)-Phi Beta Lambda (PBL); Distributive Education Clubs of America (DECA); Family, Career and Community Leaders of America (FCCLA); FFA; Health Occupations Students of America (HOSA); Technology Student Association (TSA); and SkillsUSA. These organizations are an integral part of CTE instruction. They provide recognition and leadership development opportunities for CTE students, especially for students elected as officers. Participation in the local chapters of these national organizations provides engagement for students and helps keep them in school.

A national concern is that of secondary school civics education leading to informed citizenship. Involvement in CTSOs serves not only to reinforce technical knowledge but also to instill an appreciation for democracy, consensus building and civic engagement. **KACTE recommends CTSOs be supported in the schools.**

OPPORTUNITIES

CTE is an important component of the school curriculum for secondary and postsecondary students in preparing them for their chosen career pathway. Through the years, CTE has kept pace with the development of business and industry by upgrading existing curricula, establishing new programs, and integrating technology into its teaching methodology. CTE is in prime position to assist the Commonwealth with economic and industrial development efforts. KACTE recommends exploring opportunities to develop a required middle school or secondary CTE course designed to help students explore career pathways.

As well, CTE can assist in high school transformation efforts. The career preparation model of education engages the student through active learning and by demonstrating the connection between learning and career goals. This same experiential approach could be applied to academic learning by the development of interdisciplinary applied mathematics, science, and technical reading courses, which could be used to fulfill secondary high school mathematics, science, and English graduation requirements. This applied-knowledge alternative could increase the achievement of all students, including those with learning styles not suited to more abstract academics. **Transforming high school education to integrate rigorous academic instruction with experiential learning models in pursuit of a chosen career pathway creates the obvious answer to the frustrated student's questions: "Why do I need to learn this?" and "When will I ever use this?"**

Coursework and programs designed primarily to impart specific real world career knowledge can be used to reinforce mathematics, science, and reading content of academic classes.

FUNDING

KACTE urges the General Assembly to support:

- **New career and technical centers and area technology centers where deemed needed and necessary to serve emerging populations and employment opportunities with equitable access for all students.**
- **New CTE programs to address the needs of business and industry where deemed needed and necessary to serve emerging populations and employment opportunities.**
- **Adoption of recommendations in *LRC Report #315, A Study of Secondary Career and Technical Education,* to provide adequate funding for CTE programs to enhance delivery of evidence-based, rigorous instructional opportunity for all students.**
- **Equipment replacement, upgrade, and maintenance.**
- **Access for all students.**
- **Integration of academics into career and technical education and the development of interdisciplinary applied academic courses.**
- **Increased opportunities during summer months for the professional development of CTE teachers.**

Leadership, Achievement

Kentucky's Career and Technical Education (CTE) system is led by the Education Cabinet's:

Department for Workforce Investment, Office of Career and Technical Education,
Department of Education, Division of Career and Technical Education, and
The Kentucky Community and Technical College System (KCTCS).

All working partners — local school districts to state agencies, education associations to business and industry — are striving to improve CTE at all levels: middle school, high school, area technology center, community and technical college, and university.

☞Approximately 300,000 Kentucky students are enrolled at some level in at least one CTE course.

☞Kentucky pioneered occupational skill standard certificate programs, which were created in partnership with business and industry to meet current workplace needs. The percent of students earning skill standard certificates has nearly tripled over the last four years.

☞Kentucky TECH, the state's system of secondary Area Technology Centers, became the first such system in the nation to receive district accreditation by the Southern Association of Colleges and Schools (SACS).

☞CTE concentrators (students taking three or more CTE classes) increased secondary academic achievement by 10.7 percent since 2000, compared to 8.5 percent for all other students, a reflection of the increased academic rigor of CTE courses.

☞KCTCS demonstrates its role as the state's largest provider of postsecondary education and workplace training with 85,000 enrollees, which is 41 percent of all students at public, postsecondary institutions; thus fulfilling the demand for approximately 65 percent of jobs requiring more than high school but less than a four-year degree.

CTE strives to improve programs for graduates who:

Grow your food
Repair your car
Build your house
Fix your air conditioning
Prepare your restaurant order
Care for your child
Process your bank transactions
Check your blood pressure
Clean your teeth
Service your computer