

# Using Centers for Advanced Professional Studies (CAPS) to Educate the Workforce of Tomorrow in High Skill, High Demand Jobs

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BAKER  
UNIVERSITY



ASSOCIATION FOR  
EDUCATIONAL  
COMMUNICATIONS &  
TECHNOLOGY

# Background

- Centers for Advanced Professional Studies (CAPS) programs
  - Also called 21st Century Academies and Centers for Academic Achievement.
- Nationally recognized innovative high school programs.
- High-touch, active learning environments
- In these profession-based centers, students are fully immersed
  - In a professional culture
  - Solving real-world problems
  - Using industry-standard tools/equipment
  - Mentored by actual employers, while receiving high school and college credit
- Illustrate how business, community and public education can successfully partner to produce learning experiences that educate the workforce of tomorrow
  - High skill, high demand jobs.
- This presentation will
  - highlight several large advanced professional studies programs, as well as small programs, that demonstrate how secondary schools can partner with businesses and the community to create rich and unique learning experiences that benefit students, schools, business partners, and communities.

# Career and Tech Education in Greater Kansas City

Report by the Mid-America  
Regional Council



**CAREER & TECH EDUCATION**  
IN GREATER KANSAS CITY



*Preparing High School  
Students for the Next Step*

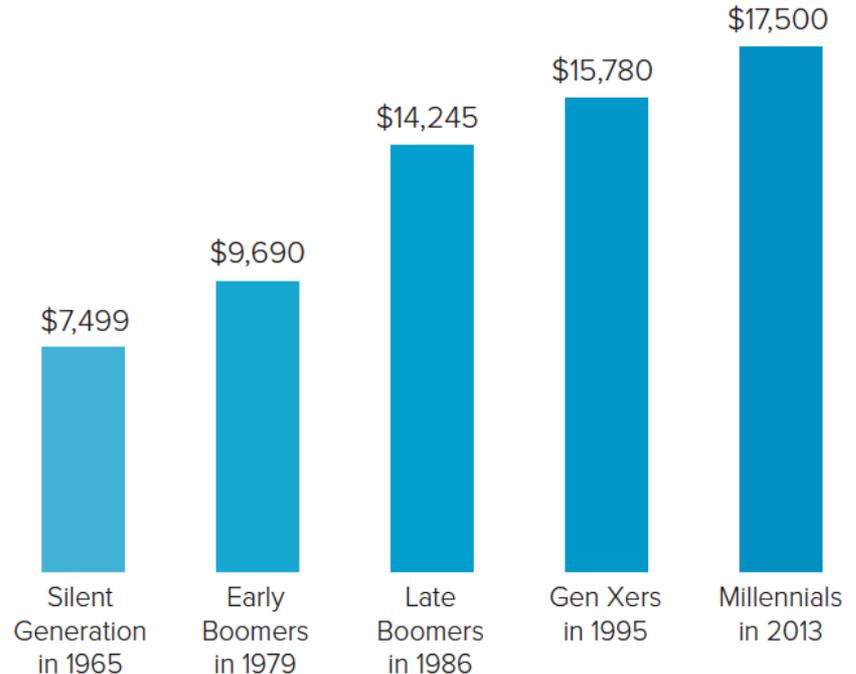
# Why Career and Tech Education?

The earnings gap is growing wider.

Millennials with a high school diploma can expect to earn just 62 percent of what the typical college graduate earns.

This chart shows the difference in median annual earnings of college and high school graduates when members of each generation were ages 25 to 32.

**The Growing Cost of Not Going to College**  
Annual Earnings Gap by Generation



# Why Career and Tech Education?

## More jobs require postsecondary credentials.

Currently, about 36 percent of all jobs in the Kansas City region require postsecondary education.

Over the next 10 years, that number is expected to rise to almost 50 percent. The growth is even more dramatic for jobs that pay an above average wage. By 2027, three out of four of these jobs will require postsecondary education.

Percent of Jobs Requiring an Associate Degree or Higher | Kansas City MSA

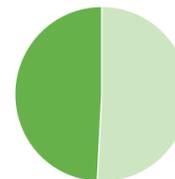
All Jobs, 2017

35.9%



All Jobs, 2027

49.4%



Good Jobs, 2027

73.1%



# Why Career and Tech Education?

CTE provides students with market value assets.

Students who leave high school with just a diploma have a significant disadvantage compared to their peers who leave with a diploma *plus* market value assets.

A market value asset is defined as an industry-valued and recognized skill acquired in high school that fosters a more seamless transition from school to postsecondary education and/or the workplace.

Students who acquire market value assets, typically through participation in CTE programming, are more likely to enroll and complete either degree- or non-degree-bearing postsecondary education or training.



## Market Value Assets

- ✓ **COLLEGE CREDIT** earned while in high school
- ✓ **INDUSTRY-RECOGNIZED CREDENTIALS**
- ✓ **CAREER EXPERIENCES** such as robust job shadowing and internships
- ✓ **ENTREPRENEURIAL EXPERIENCES** with real-world projects tied to job expectations

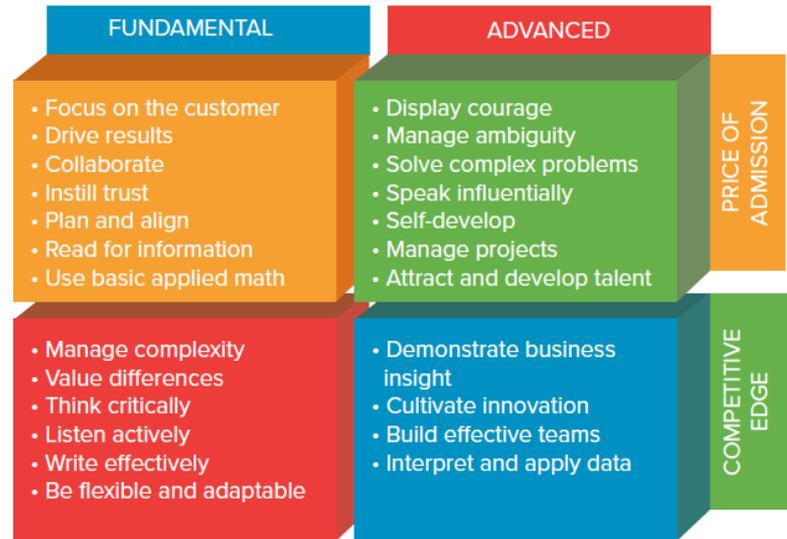
# Why Career and Tech Education?

CTE helps develop competencies employers need.

Employers often assume that higher-level credentials, such as a bachelor's degree, are a proxy for critical thinking skills and other common core competencies they expect to find in job-ready individuals.

The authentic learning techniques used in CTE can help students achieve many of these core competencies while also learning sector-specific technical skills necessary for entry-level employment.

## COMMON SECTOR COMPETENCIES MODEL



# Market Value Assets

- Technical skill development.
- Specialized coursework for a four-year plan of study.
- Industry-standard resources and equipment.
- Industry-recognized certification.
- Professional experiences all four years.
- Special real-world opportunities: competitions, field trips, volunteer hours, senior projects, internships, special events and experiences enriched by many partners.



SHAWNEE MISSION  
SCHOOL DISTRICT

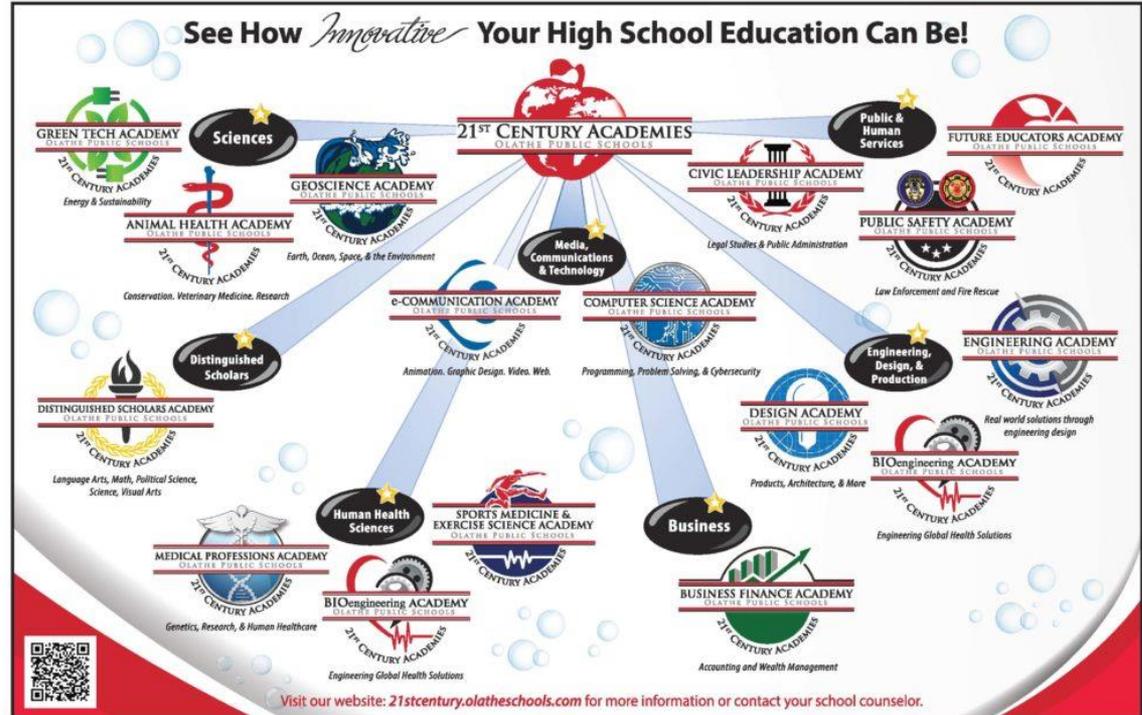
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**SIGNATURE PROGRAMS**

Video credit: YouTube/Shawnee Mission School District - [https://youtu.be/ybdiEy-aD\\_w](https://youtu.be/ybdiEy-aD_w)

# Olathe Public Schools 21<sup>st</sup> Century Academies

- Animal Health
- BIOengineering
- Business/Finance
- Civic Leadership
- Computer Science
- Design
- Distinguished Scholars
- eCommunication
- Engineering
- Future Educators
- GeoScience
- Green Tech
- Medical Professions
- Public Safety
- Sports Medicine & Exercise Science



# Essential Employability Skills

- **Collaboration** – teamwork, reliability, roles within a team
- **Communication** – Interpersonal communication: active listening, clear message, appropriate non-verbal skills [*facial expressions, posture, body language, dress*], handshakes, empathy, fairness, compassion, respect for diversity; Written communication: clear, accurate, matched to audience
- **Ethics** – confidentiality, honesty, trustworthiness, loyalty, good citizenship
- **Leadership** – awareness of strengths/weaknesses of self and team, initiative, confidence, being a self-advocate, understanding workplace rights
- **Presentation Skills** – elements of effective presentations including capturing attention, knowing your audience, establishing an objective/goal, preparation, delivery
- **Professionalism** – attendance, punctuality, electronic media etiquette, positive attitude, response to feedback/criticism, life-long learning, personal branding, goal setting
- **Post-Secondary/Career Placement** – networking, college/career exploration, interview skills, resume, portfolio development
- **Time/Project Management** – planning, organizing, creative problem-solving, meeting deadlines, resource management, decision-making process

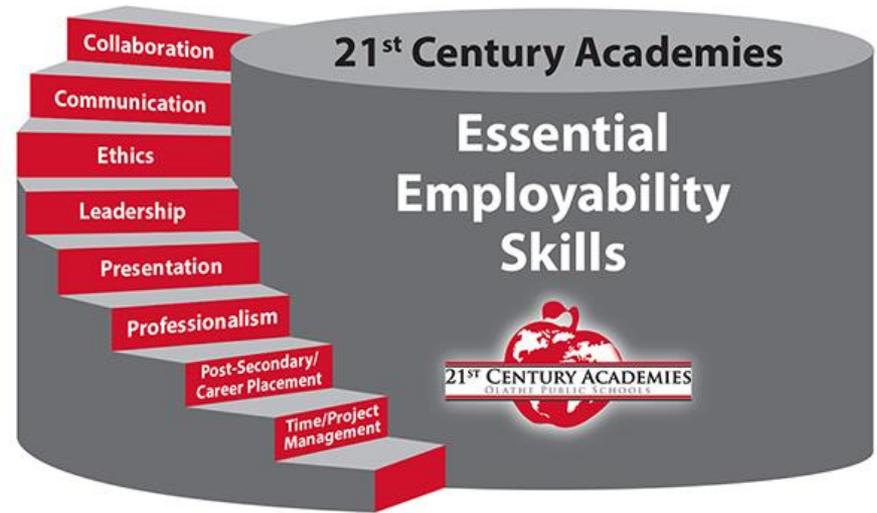


Photo credit: Olathe Public Schools



# Academy Locations

Housed in five high schools

Green Tech Public Safety	Olathe West
Animal Health Medical Professions Geoscience Sports Medicine & Exercise Science Distinguished Scholars	Olathe North
Engineering eCommunications	Olathe Northwest
Business Finance Computer Science BioEngineering	Olathe South
Future Educators Design Civic Leadership	Olathe East

# Examples

## Animal Health Academy



Photo credit: Olathe Public Schools



Photo credit: Olathe Public Schools



Photo credit: Olathe Public Schools



# Partners



Photo credit: The Greater Kansas City Attractions Association



Photo credit: Kansas City Zoo



Photo credit: Mahaffie Stagecoach Stop & Farm Historic Site

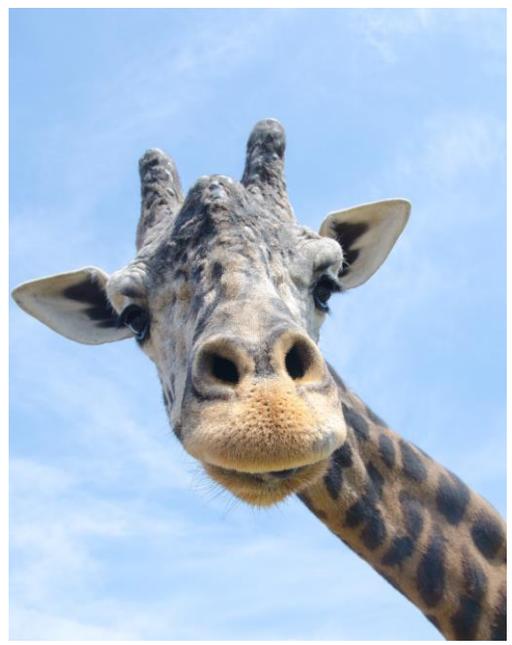


Photo credit: Kansas City Zoo

# Blue Valley Schools

## Center for Advanced Professional Studies (CAPS)

### Strands

- Biosciences
  - Molecular medicine and bioengineering
  - Environmental science
  - Bioscience research
  - Veterinary medicine
- Accelerator
  - Innovation & entrepreneurship
  - Future of food
- Business Technology Media
  - Global business
  - Digital design & photography
  - Filmmaking
  - Multimedia journalism
  - Technology solutions
  - World language
- Engineering
- Human Services
  - Law & public safety
  - Teacher education
- Medicine & Healthcare
  - Exploring health professions
  - Foundations of medicine
  - Sports medicine
  - Medical simulation lab
  - Clinical experience: Certified nurse aide





Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools



# Guiding Principles

- **Profession-based Learning**
  - Instructors develop real-world, project-based learning strategies through collaborations with business and community partners. These interactions enhance the learning experience, preparing students for college and career.
- **Responsiveness**
  - CAPS supports high-skill, high-demand careers through ongoing innovation in curriculum development, programs and services based on local business and community needs.
- **Self-Discovery and Exploration**
  - Students realize their strengths and passions by exploring and experiencing potential professions. This allows them to make informed decisions about their future, while learning to exhibit leadership.
- **Professional Skills Development**
  - Unique experiences allow students to cultivate transformative professional skills such as understanding expectations, time management and other essential business values. These skills are critical to providing students a competitive advantage in their post-secondary education and professional careers.
- **Entrepreneurial Mindset**
  - Instructors create an environment where creative thinking and problem solving is encouraged. An innovative culture is key to fostering entrepreneurial learning and design thinking.



Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools



Photo credit: Blue Valley Schools

# Shawnee Mission School District Center for Academic Achievement

## Signature Programs

- Animation & Game Design
- Biotechnology
- Culinary Arts & Hospitality
- Engineering - Project Lead the Way
- Medical Health Science



Photo credit: Shawnee Mission School District

# Broadmoor Urban Farm



Photo credit: Shawnee Mission School District



Photo credit: Shawnee Mission School District



Photo credit: Shawnee Mission School District



Photo credit: Shawnee Mission School District

# Broadmoor Bakery/PT's Coffee



Photo credit: Shawnee Mission School District



Photo credit: Shawnee Mission School District



Photo credit: Shawnee Mission School District

# Broadmoor Bistro



Photo credit: JOHN SLEEZER JSLEEZER@KCSTAR.COM

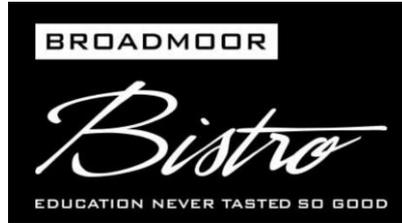


Photo credit: JOHN SLEEZER JSLEEZER@KCSTAR.COM



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CULINARY HOMECOMING 2019

**CHEF  
PABLO  
MUNOZ** TANNAN  
WINE BAR & KITCHEN

**OCTOBER 23, 2019**

**PASSED: 6PM \$40  
DINNER: 6:30PM**

# Erin Smith - Biotechnology



Photo credit: Shawnee Mission School District



Photo credit: Shawnee Mission Post



**FacePrint** is an inexpensive tool to detect early stages of Parkinson's disease in milliseconds using a computer and a webcam.

## **Erin Smith**

Video credit: YouTube/WeAreFamilyFdn - <https://youtu.be/WDhOaAghGfk>

# The Challenge

- What's next?
- Can higher education adopt these models?

# Baker University Strategic Plan 2022

## Experience. Innovation. Growth.

### Strategic Plan 2022

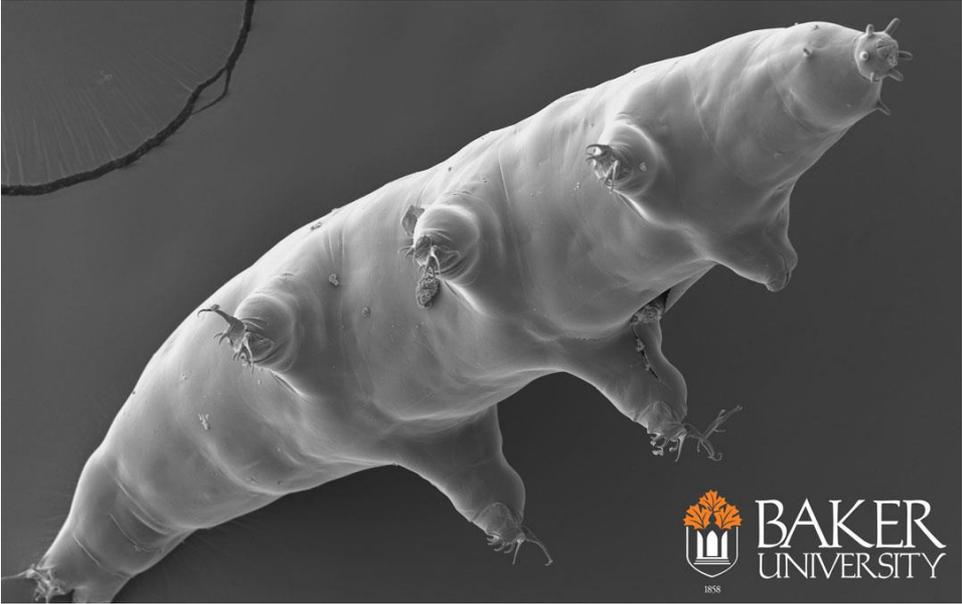
- Goal 1 - Our students will have an exceptional experience from first contact through graduation that promotes meaningful careers and purposeful lives.
  - All Baker University students will participate in an internship or experiential learning opportunity before completing their degree.











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