CTE
CAREER & TECHNICAL EDUCATION

INFORMATION TECHNOLOGY

DID YOU KNOW?

1/3 1/3 of CTE Students can earn **college credit** and/or **industry certification** through CTE.[1]

CTE Graduates **earn significantly more** than those who majored in academic fields.[2]

6 in 10 Students plan to **pursue a career related to the CTE area** they explored in high school.[3]

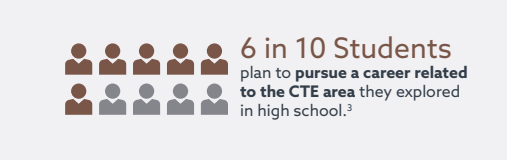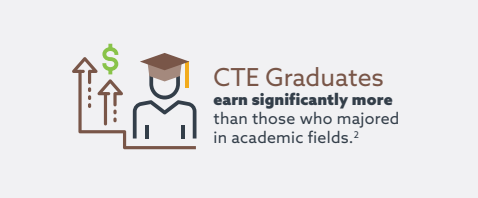CTE Graduates with technical or applied science associate's degrees **out-earn** bachelor's degree holders by **$11,000**.[4]

[1] Source: My College Options®/ACTE research study (2016). National sample includes 40,192 high school CTE students., [2] Jacobson and Mokher, Florida Study of Career and Technical Education, 2014, as cited in the 2014 National Assessment of CTE Final Report, [3] NRCCUA® and ACTE 2016, [4] Schneider 2013, College Measures

INFORMATION TECHNOLOGY - COMPUTER SCIENCE
(4-year pathway)

The Information Technology (IT) Computer Science Program prepares students to meet the demands of the 21st century with a rigorous academic curriculum, while exposing them to the varied career paths and opportunities available in the Information Technology (IT) Computer Science industry. Students are provided concentrated coursework in JAVA, Python, AP Courses, CyberSecurity, Data Science, Artificial Intelligence (AI), and Software Engineering that will prepare them for post-secondary training and/or a career path in the Information Technology (IT) Computer Science field.

IT Computer Science Specialty Courses:

GRADE 9	• Foundations of Computer Science
GRADE 10	• Advanced Placement Computer Science Principles
GRADE 11	• Advanced Placement Computer Science
GRADE 12	• Computing Tools and Environment • Client Operating Systems

IT Computer Science (Oracle Academy- Java) Specialty Courses:

GRADE 9	• Java Fundamentals
GRADE 10	• Java Foundations
GRADE 11	• Java Programming
GRADE 12	• Artificial Intelligence with Machine Learning in Java

IT Computer Science (Oracle Academy - Database) Specialty Courses:

GRADE 9	• Database Foundations
GRADE 10	• Database Design and Programming with SQL
GRADE 11	• Programming with PL/SQL
GRADE 12	• Oracle Application Express • Application Development Foundations

IT CISCO NETWORKING ACADEMY - CYBERSECURITY

(2-year pathway)

The IT CISCO Networking Academy is a nationally recognized program that prepares students for successful careers in information technology fields such as computer network design and administration, hardware, software, and network installation, local and wide-area network (LAN/WAN) management and systems engineering. The IT CISCO Networking Academy) prepares high school students with the professional skills they require to pursue quality academic and professional opportunities. Particular emphasis is given to using decision-making and problem-solving techniques in the application of science, mathematics, communication and social studies concepts to solve networking problems.

Academy courses are designed with the option of an applied approach or a more theoretical approach to learning IT networking. The course sequence is a hands-on, applied technology approach to Cisco and CompTIA certifications. As a result of participation in this program, students can earn industry certifications that are the first steps toward a Cisco Certified Network Professional (CCNP) certification, or to more advanced certifications in CCNA Voice, Cloud, Wireless, or Security.

IT Networking CISCO Specialty Courses:

GRADE 11	• Introduction to CISCO Networking • Routing and Switching Essentials
GRADE 12	• CyberSecurity Essentials • CCNA Security

Possible Certifications

- Microsoft Technology Associate Software Development Fundamentals
- Microsoft Technology Associate Networking Fundamentals
- Microsoft Technology Associate Security Fundamentals
- CompTIA A+
- CompTIA Network+
- CompTIA Security+
- CCENT (networking technician)
- CCNA (network administrator)
- Certified Network Professional (CCNP)

Possible College Majors

- Information Technology
- Software Development and Design
- Computer Science
- Computer System Analysis
- Networking and Telecommunications
- Computer Information Systems
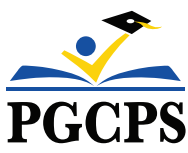- Computer Graphics

Possible Careers

- Computer Support Specialist
- Network Technician
- Network Administrator
- Webmaster
- Software Designer
- Apps Designer
- Network Manager
- Computer Programmer
- Database Administrator

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