



→ **Keys to a booming future.**

**J**obs in computer science and application development are among the highest paid and most in-demand in today's economy. Computing drives innovation in science, engineering, business, entertainment, and education.

A solid foundation in computer science will provide you with the problem-solving skills and logical thinking that will give you a competitive advantage in your career, whatever field you choose. Mastering the language of computing can provide you with a critical advantage in the job market. Whether you want to be a scientist, technician, or engineer, or want to develop the next "killer app," here's your opportunity to step into one of today's hottest fields.

*Advanced college/trade school credit is available to qualifying students from the following institutions:*



**COURSE TITLE: COMPUTER SCIENCE AND APPLICATION DEVELOPMENT**

**COURSE DESCRIPTION**

Students will be exposed to a diverse set of computational thinking concepts, fundamentals and tools, allowing them to gain understanding and build confidence and to develop and evaluate computing systems and software. Students use the Java™ computer programming language to design and develop computer software and to implement their designs into practice. The course utilizes industry-standard tools such as Java™ programming language, integrated development environments, XML and MS-Office. Students collaborate to create original solutions to problems and challenges of their own choosing by designing and implementing user interfaces, developing processing logic, and utilizing advanced data structures. Related student experiences include app development, data visualization, cybersecurity and simulation. This program presents a curriculum for preparing students for success on both the College Board CSA AP exam and the Oracle Certified Associate (OCA) Java™ SE Programmer I certification exam.

**EDUCATIONAL OPPORTUNITIES**

Eligible for the AP CSA examination  
 Associate Degree  
 Bachelor's Degree

**REQUIRED COURSE**

Students enrolling in this program are expected to show proficiency in math by scoring a minimum of 80% on the Algebra II Regents examination.

**SUGGESTED SUPPORTIVE COURSES**

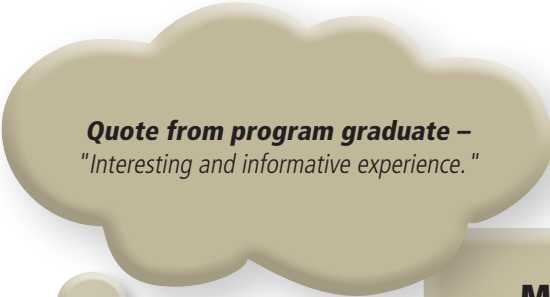
Trigonometry, Physics

**CAREER OPPORTUNITIES**

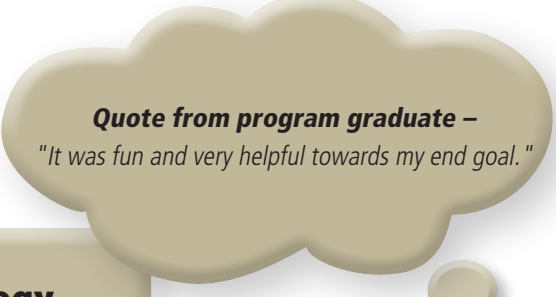
Software Engineer	Data Analyst
Website Developer	Database Administrator
Mobile App Developer	Management Info Systems
Systems Analyst	Information Technology Specialist
Video Game Design and Development	

**ADDITIONAL INFORMATION**

COSTS.....Additional fees of approximately \$300 may be incurred  
 LENGTH OF COURSE .....1 year  
 LOCATION.....Gary D. Bixhorn Technical Center  
 CTE/ACADEMIC CREDIT .....Please see chart on pages 4 and 5 for updated details  
 INDUSTRY CERTIFICATIONS .....Oracle Java SE Programmer I, AP Computer Science A



**Quote from program graduate –**  
*"Interesting and informative experience."*



**Quote from program graduate –**  
*"It was fun and very helpful towards my end goal."*

**Manufacturing Technology**

- Welding/Metal Fabrication (MTC)
- Computer Science and App Development (BTC)
- Computer Repair and Networking (BTC)
- Introduction to Welding (ICC)

