

### **COMPUTER SCIENCE** >>>

People who work in Information Technology have a wide array of career paths available. Some may help organizations select the correct information technology for their needs. They may also install IT systems, write and update documentation about those systems, and help people troubleshoot IT problems. Others deal with the design and creation of interactive multimedia products and services.

Computer networks are the lifeblood of most organizations. Networks provide a means for people to share information while working on different computers in the same building or in different locations altogether. Networks must be built and maintained by people who are specially trained.

People who work in programming and software development create the programs and software packages people use for business, education, or just for fun. Working in this pathway, as with most other areas of the information technology cluster, requires a good understanding of various computer operating systems and programming languages, as well as the needs of the audience for whom the software is intended.

### HIGH SCHOOL PATHWAY CLASSES



INTRO TO DIGITAL TECHNOLOGY is designed for students to understand, communicate, & adapt to a digital world as it impacts their personal life, society, and the business world. Exposure to foundational knowledge in hardware, software, programming, web design, IT support, and networks are all taught in a computer lab with hands-on activities and project focused tasks. Students will not only understand the concepts, but apply their knowledge to situations and defend their actions/ decisions/choices through the knowledge and skills acquired in this course.



#### COMPUTER SCIENCE PRINCIPLES/AP COMP. SCI. PRINCIPLES engages your creativity, demonstrates and build your problem solving ability all while connecting the relevance of computer science to the society! Focuses on building a solid understanding and foundation in computer science and emphasizes the content, practices, thinking and skills central to the discipline of computer science. This course also meets the fourth mathematics or world language requirement; two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses for USG admissions.



AP COMPUTER SCIENCE A conforms to the College Board syllabus for the AP Computer Science Examination. Covers programming methodology, features of programming languages, fundamental data structures, algorithms, and computer systems. Students taking this course must take the AP exam. This course satisfies the fourth science requirement and is recognized by the Board of Regents as such. This course also meets fourth mathematics or world language requirement; two computer science courses from the same pathway will satisfy two years of sequenced foreign language courses for USG admissions.

## CAPSTONE: WBL INTERNSHIP >>>

WBL (WORK-BASED LEARNING) connects skilled, knowledgeable and driven students to local businesses every year. Students who participate in the Information Technology program and have been selected to participate in WBL will leave school early to work with our fantastic business partners. Benefits to students include a chance to put skills learned in the classroom to use in an authentic setting, getting a competitive advantage on their career and networking with industry leading professionals all while still in

## CAREER TECH STUDENT ORGANIZATIONS >>>>

high school. www.hallcowbl.org



FBLA Georgia FBLA is a nonprofit student organization committed to preparing today's students for success in business leadership.

FBLA is an important partner in the success of school-towork programs, business education curriculums, and student leadership development. FBLA is recognized by the U.S.

> Departments of Education and Labor as an integral part of a co-curricular approach to business and leadership education.

The FBLA mission is to bring business and education together in a positive working relationship through innovative leadership and career development programs. We bring our mission to life through the application of our motto: Service, Education, and

Progress.

### POTENTIAL CAREERS >>>

- Database Specialist
- Technical Writers & Editors
- Technical Support Specialist
- · Computer & Video Game Designer
- Graphic Designer
- Multimedia Sound Worker
- Computer Network Specialist
- Computer Systems Analysts
- Telecommunications Technician
- · Video Game Designers
- Computer Programmers
- Graphics Programmers
- Software Designers



# COMPUTER SCIENCE

### **CAREER PATHWAY - PLAN OF STUDY**

## GRADUATION REQUIREMENTS >>>

#### **ENGLISH/LANGUAGE ARTS**

4 Units Must Include: 9th Grade Literature & American Literature

#### **SOCIAL STUDIES**

3 Units Must Include: World History, US History, Government & Economics

#### **MATHEMATICS**

4 Units Must Include:

GSE Algebra I, GSE Geometry & GSE Algebra II

one additional GSE/AP/IB/DE Math course

GSE Accelerated Algebra I/Analytic Geometry A, GSE Accelerated Geometry B/Algebra II, GSE Precalculus

one additional GSE/AP/IB/DE Math course

#### **SCIENCE**

4 Units Must Include: Physical Science or Physics; Biology;

Chemistry, Earth Systems, Environmental Science or AP/IB course

one additional Science course

#### **HEALTH & PERSONAL FITNESS**

1 Unit Must Include: 1/2 unit of each

#### CAREER, TECHNICAL & AGRICULTURE EDUCATION (CTAE)

3 Units Must include:

Introduction to Digital Technology, Computer Science Principles or AP, AP Computer Science A

#### **ELECTIVES**

4 Units

\*Students planning to attend most post-secondary institutions must take 2 units of the same modern language.

#### **TOTAL UNITS REQUIRED**

23 Units

## PERSONAL APTITUDES >>>

#### **ACTIVITIES THAT DESCRIBE WHAT I LIKE TO DO:**

- · Work with computers.
- · Reason clearly & logically to solve problems.
- · Use machines, techniques, & processes.
- · Play video games & figure out how they work.
- · Concentrate for long periods without being distracted.



#### PERSONAL QUALITIES THAT DESCRIBE ME:

- Logic/analytical thinker
- See details in the big picture
- Persistent
- · Good concentration skills
- · Precise & accurate

#### WANT MORE INFORMATION ON YOU?

YouScience is the science of YOU – how your mind is wired, what makes you tick, the skills and knowledge that set you apart. You have talent and there's a path that's right for you -ြင့္လင္မိ we can help you find it.

Login to Infinite Campus and locate the SLDS Portal link on the left. Once logged in, click on "My Career Plan" then choose "Go to YouScience".

#### WHAT YOU LEARN IN SCHOOL MATTERS

You're learning skills and knowledge that can make you a qualified candidate for in-demand careers. Industry-recognized certifications, available to all pathway students, are great signals to employers that you have the skills they're looking for. Certifications help validate what you know, so other people know, that you know it.

#### **OUESTIONS?**

**POST-SECONDARY** 

Contact your CTAE teacher, WBL Coordinator or School Counselor

### PATHWAY TO FUTURE CAREER OPTIONS >>>

#### **HIGH SCHOOL**

Pathway Courses Capstone

#### **Technical College**

4 Year College/University

**Dual Enrollment** 

Certificate **Diploma Program Degree Program** 

**Bachelor Degree Masters Degree Graduate Studies** 





