Program of Study: Networking

This Program of Study may serve as a graduation guide for the next four plus years, along with other career planning and educational materials. Courses listed in this model may include recommended coursework and should be individualized to students' educational and career goals. Each graduation plan needs to meet minimum high school graduation requirements. Dual Enrollment courses can be high school academic and/or career technical education courses.

Course/Grade	Secondary: Networking					Postsecondary			Bachelor of Science
	Ninth	Tenth	Eleventh	Twelfth		TCC	Degree		
English	9th grade Lit/ Composition	10th grade Lit/ Composition	American Lit/ Composition	World Lit/Composition / British Lit	**Entrance or Exit Point**	**NT41 Network Technician** - COMP 1000 Intro to Computer Literacy - CIST 1001 Computer Concepts - CIST 1135 Operating Systems Concepts and Virtual Cloud Computing - CIST 1401 Computer Networking Fundamentals	**NS13 Networking Specialist Degree** - Complete Academic courses - CIST 1001 Comp. Concepts - CIST 1122 Hardware Installation and Maintenance - CIST 1135 Operating Systems Concepts and Virtual/Cloud Computing - CIST 1401 Computer Networking Fundamentals OR - CIST 2451 Cisco Network Fundamentals - CIST 1601 Information Security Fundamentals - Networking Electives 14 credits - Linux/Unix Specialization 16 credits OR - Microsoft Specialization OR - Cisco Specialization 16 credits	**Entrance or Exit Point**	The University System of Georgia offers students' higher education options at 30 institutions throughout the state, providing a wide range of academic programming including certificates and associate, baccalaureate, masters, doctoral and professional degrees. https://apps.usg.edu/ords/f?p=118:1:0:::::
Mathematics	Coordinate Algebra / Algebra I	Analytic Geometry / Geometry	Advanced Algebra / Algebra II	Pre-calculus					
Science	Physical Science	Biology	Chemistry	Physics					
Social Studies	Psychology	World History	US History	Government (½ unit) Economics (½ unit)					
Pathway Completer	**Introduction to Digital Technology**	**Networking Fundamentals**	**Networking Systems and Support**	Work-Based Learning, Youth Apprenticeship, or Capstone Project					
Industry Recognized Credential (Pathway Completer)	Visit the End of Pathway Assessment Page (*see note below*)								
Required/ Selective Electives	Health & Personal Fitness (*can be taken in grades 9-12*)	Fine Arts course	AP Computer Science Principles	AP Computer Science					

Required/ Selective Electives (continued):

Modern Language/Latin	Other Electives
2 units required for admissions to Georgia University System Colleges/Universities For a listing of Modern Language/Latin courses offered at your high school, please contact your advisor, counselor, or curriculum handbook.	For a listing of other elective courses offered at your high school, please check with your advisor, counselor, or curriculum handbook.

NOTE: Students have many options to **ENTER** and **EXIT** from their academic studies into the workforce. When a student graduates from high school, they are eligible to choose one of many **ENTRANCE POINT** options: **1.** Enroll in either a 2 or 4 year post-secondary program; **2.** Enroll in an apprenticeship program or the military; or **3.** Enter the workforce using technical skills learned in high school. When a student finishes a 2- or 4-year degree program, they may choose to **EXIT** and **1.** Enroll in an apprenticeship program or the military; **2.** Enroll in a professional university degree program; or **3.** Enter the workforce using technical skills learned.

Networking Career Pathway Completers - Industry Credentialing for High School Students

Upon completion of sequenced courses in the Networking Career Pathway, students are eligible to complete the Industry-Recognized student credential for fulfillment of the End of Pathway Assessment. Secondary students completing the Networking pathway will be able to sit for the National Industry Credentialed assessment offered on-line from NOCTI, MTA, and OKCareerTech. Once mastery is reached, students will receive recognition for completion and use this credential in conjunction with their job or continuing training. For specific assessment information, refer to: http://bit.ly/GAInfoTech

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Sample High Demand Careers in Georgia

Occupation Specialties	Level of Education Needed	Georgia Average Salary	Annual Average Openings in Georgia	2014 – 2024 Employment Outlook
Computer Network Architects	Bachelor's Degree	$110,687	79	High Demand, High Skill
Computer Network Support Specialists	Associate or Bachelor's Degree	$69,799	148	High Demand, High Skill
Database Administrators	Bachelor's Degree	$85,025	187	High Demand, High Skill

GDOL Labor Market Explorer

Go to GAfutures at www.gafutures.org for more information about your education and career planning, including valuable financial information (grants and scholarships including HOPE Program, grants and loans, FAFSA, and CSS forms).

Career Enhancement Opportunities

Career-Related Education Activities
- ❑ Career Awareness
- ❑ Career Exploration
- ❑ Instructional Related
- ❑ Connecting
- ❑ Work-Based Learning
  - Employability Skill Dev.
  - Cooperative Education
  - Internship
  - Youth Apprenticeship
  - Clinicals

Postsecondary Options:
- 4-Year Universities/ Colleges
- 2-Year Colleges
- Technical Colleges
- State Registered Apprenticeships
- Special Purpose Schools
- On-the-Job Training
- Military

Earning Postsecondary Credits While in High School
A vital way to get ahead and realize you can pass college courses is by earning postsecondary credits as a high school student. Georgia offers a dual credit program titled Dual Enrollment. You need to talk with your parents, school counselor, or advisor about the proper courses to take each year in high school and dual credit.

Students completing the course work in this Plan, will have earned/completed an Industry Credential, Technical Certificate of Credit (TCC), Associates of Applied Science Degree, and/or Bachelor's Degree.

Postsecondary Transition
- Students who will continue their education in a Program of Study at one of the University System of Georgia institutions should prepare to take the ACT or SAT for admissions. Tests for admissions may vary from institution to institution. Contact the selected institution for specific testing information. Additional admissions information can be found at Staying On Course. (www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf)
- Students who will continue their education in a Program of Study at one of the Technical College System of Georgia institutions should prepare to complete a placement exam.
- Students who will continue their education and training in the US Military should take the ASVAB assessment.
- Students should utilize electronic college and career databases to select the most appropriate postsecondary opportunities to match their selected career field, including registered apprenticeships.
- Georgia's dual-credit programs have been combined into one program entitled Dual Enrollment, in which high school students may earn their high school course credits while taking college courses.

Related Pathway Occupations	Other Related Occupations
• Computer & Information Systems Managers • Computer Network Architects • Computer Network Support Specialists • Data Warehousing Specialists • Database Administrators • Database Architects • Network & Computer Systems Administrators	• Graphics Designers • Computer Programmers *ONET Online

Networking Pathway Description

Computer networkers install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. These workers maintain network hardware and software and monitor the network to ensure network availability to all system users. In addition, these workers perform necessary maintenance to support network availability. Some may supervise other network support and client server specialists and plan, coordinate, and implement network security measures.

System administrators are responsible for maintaining network efficiency. These workers ensure that the design of an organization's computer system allows all of the components, including computers, the network, and software to work properly together. Furthermore, these workers monitor and adjust the performance of existing networks and continually survey the current computer site to determine future network needs. Network Administrators also troubleshoot problems reported by users and by automated network monitoring systems and make recommendations for future system upgrades.

Training requirements for computer networking positions vary, but many employers prefer to hire applicants with some formal college education. A bachelor's degree in computer science or information systems is a prerequisite for some jobs; other jobs, however, may require only a computer-related associate degree.

Employment of network and computer system administrators is expected to increase by 20-28 percent from 2010 to 2020, which is much faster than the average for all occupations.