2026 – 2027

PROGRAM GUIDE

DIGITAL TECHNOLOGY CLUSTER

AND DIGITAL TECHNOLOGY MIDDLE SCHOOL

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CAREER AND TECHNICAL EDUCATION
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Digital Technology Cluster

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This cluster prepares high school students with essential knowledge and skills for pursuing careers in the following three pathways: Computer Science, Cybersecurity and Infrastructure, Information Technology Support and Services.

Courses highlighted in yellow are shared with other clusters. See "Shared Courses" table on page 4 for additional details.

Career Pathway Program	Computer Science Program (Must teach three courses from this program list within two years.) This pathway includes the study of theoretical algorithms, and the practical problems involved in implementing them through computer hardware and software. This pathway includes artificial intelligence, software engineering, programming, and computer graphics. The need for computer science as a discipline has grown as computers become more integrated into daily life and technology continues to advance. This pathway provides students with skills required for the workforce both now and in the future.		
Course Number	**Career Pathway Program Courses**	**Career Readiness Indicator (CRI)**	**In Demand Occupations**
22161G1001	Artificial Intelligence	• Certified Internet Web (CIW) – JavaScript Specialist • Certiport Information Technology Specialist (ITS) Artificial Intelligence • Certiport Information Technology Specialist (ITS) Java • Certiport Information Technology Specialist (ITS) JavaScript • Certiport Information Technology Specialist (ITS) Python • Certiport Information Technology Specialist (ITS) Software Development • CompTIA Competency in Technology Fundamentals • CompTIA Tech+ • FAA Part 107 • Microsoft Azure AI Fundamentals • Microsoft Azure Data Fundamentals • Microsoft Azure Fundamentals • Microsoft Office Specialist- Access Expert 2019/O365 • Microsoft Office Specialist- Excel Expert 2019/O365 • Microsoft Power Platform Fundamentals • Oracle Certified Associate (OCA) – Java Programmer • Skills for Success – Drone Operator	• Artificial Intelligence Engineer • Computer and Information Research Scientist • Computer and Information Systems Manager • Computer Systems Engineer/Architect • Computer User Support Specialist • Data Analyst • Electrical Engineer • Information Security Analyst • Information Technology Support Specialists • Management Analyst • Network and Computer Systems Administrator • Robotics Engineer • Software Developer
10997G1010	Career Pathway Project in Information Technology		
10205G1001	Computer Game and Simulation Programming		
10157E1000	** AP Computer Science A – Math and/or Science credit eligible		
10159E10HL	Computer Science, HL, IB – Math and/or Science credit eligible		
10019E1000	**AP Computer Science Principles – Math and/or Science credit eligible		
10024E1000	AP Cybersecurity		
10159E10SL	Computer Science, SL, IB – Math and/or Science credit eligible		
10997G1002	CTE Lab in Information Technology		
10012G1001	**Exploring Computer Science – Math and/or Science credit eligible		
10001G1000	Information Technology Fundamentals		
10012G1002	*Introduction to Computer Science –TEALS – Math and/or Science credit eligible		
10011G1000	Introduction to Digital Literacy and Computer Science-ACCESS – Math and/or Science credit eligible		
10206G1001	Mobile Application Development		
10152G1003	Object-Oriented Programming I		
10152G1004	Object-Oriented Programming II		
10152G1002	Programming Design and Development		
10152G1001	Programming Foundations – Math and/or Science credit eligible		
21009G1000	Robotic Systems		
10998G1050	Internship in Information Technology		
NOTE: *LEAs must contact TEALS for additional information prior to utilizing the course code listed above, as it does require submission of an application, an interview, and a signed partnership agreement. ** LEAs must contact the ALSDE Computer Science specialist prior to utilizing the course codes listed to obtain information for required training and curriculum material.			

Career Pathway Program	Cybersecurity and Infrastructure Program (Must teach three courses from this program list within two years.) This pathway provides students with the skills necessary for protecting information technology infrastructure and networks, devices, and data from unauthorized access or criminal use and the practice of ensuring confidentiality, integrity, and availability of information. Cybersecurity is an enormous and growing field as consumers and businesses share data through online shopping and social media applications.		
Course Number	**Career Pathway Program Courses**	**Career Readiness Indicator (CRI)**	**In Demand Occupations**
10024E1000	AP Cybersecurity	• Certiport Information Technology Specialist (ITS) Cloud Computing • Certiport Information Technology Specialist (ITS) Cybersecurity • Certiport Information Technology Specialist (ITS) Networking • Cisco Certified Support Technician – Cybersecurity • CompTIA Competency in Linux System Administration • CompTIA Competency in Networking • CompTIA Competency in Networking with Cisco Devices • CompTIA Competency in Technology Fundamentals • CompTIA Linux+ • CompTIA Network+ • CompTIA Security+ • CompTIA Tech+ • FAA Part 107 • Microsoft Azure AI Fundamentals • Microsoft Azure Data Fundamentals • Microsoft Power Platform Fundamentals • Microsoft Security, Compliance, and Identity Fundamentals • Skills for Success – Drone Operator • TestOut Security Pro	• Business Operations Specialist • Cloud Security Specialist • Computer and Information Systems Manager • Computer Science Teacher • Computer Systems Engineer/Architect • Computer User Support Specialist • Cybersecurity Analyst • Detectives and Criminal Investigator • Information Security Analyst • Management Analyst • Network and Computer Systems Administrator • Penetration Tester • Software Developer
22161G1001	Artificial Intelligence		
10997G1010	Career Pathway Project in Information Technology		
10102G1014	Cloud and Virtualization Technologies		
10997G1002	CTE Lab in Information Technology		
10020G1011	Cybersecurity I		
10020G1012	Cybersecurity II		
10020G1013	Cybersecurity III		
10109G1001	Foundations of Operating Systems		
10001G1000	Information Technology Fundamentals		
10109G1000	Linux Fundamentals		
10112G1001	Network Fundamentals		
10112G1002	Network Systems Administration		
10998G1050	Internship in Information Technology		

Career Pathway Program	Information Technology Support and Services Program (Must teach three courses from this program list within two years.) This pathway provides students with a basic understanding of computer hardware and software and with the skills which could lead them to careers providing IT or technical support services. Students also develop problem-solving and critical thinking skills.		
Course Number	**Career Pathway Program Courses**	**Career Readiness Indicator (CRI)**	**In Demand Occupations**
10997G1010	Career Pathway Project in Information Technology	• Certiport Information Technology Specialist (ITS) Device Configuration and Management • Certiport Information Technology Specialist (ITS) Network Security • Cisco Certified Support Technician Networking • CompTIA Competency in IT Hardware and Network Support and CompTIA Competency in IT Software and Systems Support (Both areas required.) • CompTIA Competency in Networking • CompTIA Competency in Networking with Cisco Devices • CompTIA Competency in Technology Fundamentals • CompTIA A+ (Core 1 and Core 2 required) • CompTIA Network+ • CompTIA Tech+ • C-Tech Network Cabling Specialist Copper Systems • C-Tech Network Cabling Specialist Fiber Optic Systems • FAA Part 107 • Microsoft Azure AI Fundamentals • Microsoft Azure Data Fundamentals • Microsoft Azure Fundamentals • QuantHub – Applied Data Skills • Skills for Success – Drone Operator • Skills for Success – Fiber Optics Technician and Installer	• Computer Systems Analyst • Computer Systems Engineer/Architect • Computer User Support Specialist • Database Administrator • Information Security Analyst • Information Technology Project Manager • Information Technology Support Specialist • Network and Computer Systems Administrator • Software Developer • Software Quality Assurance Analyst and Tester • Web Developer
10102G1014	Cloud and Virtualization Technologies		
10252G1001	Computer Maintenance and Troubleshooting		
10997G1002	CTE Lab in Information Technology		
10109G1001	Foundations of Operating Systems		
10001G1000	Information Technology Fundamentals		
10109G1000	Linux Fundamentals		
10112G1001	Network Fundamentals		
10152G1001	Programming Foundations		
10253G1001	Technology Support and Services		
10998G1050	Internship in Information Technology		

Career Pathway Program	*SREB AC Informatics Program (Must teach three courses from this program list within two years.) This program merges information science, computer science, and health care. Students use information technology, data analysis software, and statistics to address a range of health-related topics. Through real-world projects, students use information technology, data analysis software and statistics to address a range of health-related topics.		
Course Number	**Career Pathway Program Courses**	**Career Readiness Indicator (CRI)**	**In Demand Occupations**
10054G1014	SREB Computers, Networks and Databases	• Certiport Information Technology Specialist (ITS) – Databases • CompTIA Competency in Networking • CompTIA Network+ • CompTIA Security+ • Oracle Certified Associate- Database • TestOut Security Pro	• Business Intelligence Analyst • Data Analyst • Data Manager • Database Administrator • Health Informatics Specialist • IT Support Specialist • System Analyst
10054G1034	SREB Databases in the Cloud		
10054G1024	SREB Design for the Digital World		
10054G1044	SREB Developing a Cloud Presence		
***NOTE:** LEAs must contact SREB for additional information prior to utilizing any of the course codes listed above, as it does require commitment to the conditions in a MOU and participation in mandatory training provided by the provider.			

Career Pathway Program	*Project Lead The Way (PLTW) – Computer Science **(Must teach three courses from this program list within two years.)** Whether building apps to meet client needs or exploring cybersecurity, PLTW Computer Science engages students in interdisciplinary activities that not only build knowledge and skills in computer science, but also empower students to develop essential skills such as problem solving, critical and creative thinking, communication, collaboration, and perseverance. The program's courses empower students with in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they choose.		
Course Number	**Career Pathway Program Courses**	**Career Readiness Indicator (CRI)**	**In Demand Occupations**
10157E1000	AP Computer Science A – Math and/or Science credit eligible	• Certified Internet Web (CIW) – JavaScript Specialist • Certiport Information Technology Specialist (ITS) Cybersecurity • Certiport Information Technology Specialist (ITS) Java • Certiport Information Technology Specialist (ITS) JavaScript • Certiport Information Technology Specialist (ITS) Python • Certiport Information Technology Specialist (ITS) Software Development • CompTIA Security+ • FAA Part 107 • Microsoft Security, Compliance, and Identity Fundamentals • Oracle Certified Associate (OCA) – Java Programmer • Skills for Success – Drone Operator • TestOut Security Pro	• AI and Machine Learning Engineer • Cybersecurity Analyst • Data Scientist • IT Support Specialist • Software Developer • Web Developer
10019E1000	AP Computer Science Principles – Math and/or Science credit eligible		
10013G1000	Computer Science Essentials – PLTW – Math and/or Science credit eligible		
10016G1000	Cybersecurity – PLTW – Math and/or Science credit eligible		
***NOTE:** This is a purchased curriculum. LEAs must contact PLTW for additional information prior to utilizing the course codes listed above with a PLTW suffix, as it does require submission of a signed copy of the Terms and Conditions, participation in mandatory training and payment of a participation fee to the provider.			

Career Pathway Program	*Project Lead The Way (PLTW) – Gateway Computer Science Units **Grades 6-8** PLTW Gateway's units empower students to lead their own discovery. As students engage in PLTW's activities, they see a range of paths and possibilities they can look forward to in high school and beyond.
Course Number	**Courses**
10099G6800	App Creators - PLTW
10099G6801	Computer Science for Innovators and Makers - PLTW
***NOTE:** This is a purchased curriculum. LEAs must contact PLTW for additional information prior to utilizing the course codes listed above with a PLTW suffix, as it does require submission of a signed copy of the Terms and Conditions, participation in mandatory training and payment of a participation fee to the provider.	

Digital Technology Cluster

Revised 07/24/26

2026 – 2027 Subject and Personnel Codes

Digital Technology Cluster Courses	
Course Number	**Course Name**
10157E1000	AP Computer Science A – Math and/or Science credit eligible
10019E1000	AP Computer Science Principles – Math and/or Science credit eligible
10024E1000	AP Cybersecurity
22161G1001	Artificial Intelligence
10997G1010	Career Pathway Project – Information Technology
10102G1014	Cloud and Virtualization Technologies
10205G1001	Computer Game and Simulation Programming
10252G1001	Computer Maintenance and Troubleshooting
10013G1000	Computer Science Essentials – PLTW – Math and/or Science credit eligible
10159E10HL	Computer Science, HL, IB – Math and/or Science credit eligible
10159E10SL	Computer Science, SL, IB – Math and/or Science credit eligible
10997G1002	CTE Lab in Information Technology
10020G1011	Cybersecurity I
10020G1012	Cybersecurity II
10020G1013	Cybersecurity III
10016G1000	Cybersecurity – PLTW – Math and/or Science credit eligible
10012G1001	Exploring Computer Science – Math and/or Science credit eligible
10109G1001	Foundations of Operating Systems
10001G1000	Information Technology Fundamentals
10012G1002	Introduction to Computer Science – TEALS – Math and/or Science credit eligible
10112G1001	Network Fundamentals
10112G1002	Network Systems Administration
10152G1003	Object-Oriented Programming I
10152G1004	Object-Oriented Programming II
10152G1002	Programming Design and Development
10152G1001	Programming Foundations – Math and/or Science credit eligible
21009G1000	Robotic Systems
10054G1014	SREB Computers, Networks and Databases
10054G1034	SREB Databases in the Cloud
10054G1024	SREB Design for the Digital World
10054G1044	SREB Developing a Cloud Presence
10253G1001	Technology Support and Services
10998G1050	Internship in Information Technology

Digital Technology Middle School	
10099G6800	App Creators – PLTW
10012G0608	Computer Science Discoveries
10099G6801	Computer Science for Innovators and Makers – PLTW
10012G0808	Computer Science and Society
10012G0606	Computer Science Endeavors
10013G0808	CS Makers
10001G1001	Exploring Information Technology Careers
10020G0808	Introduction to Cybersecurity

Shared Courses			
Course Number	**Course Name**	**Cluster(s)**	**Required Year to Implement COS**
10024E1000	AP Cybersecurity	Management and Entrepreneurship	
10099G6800	App Creators – PLTW	STEM	N/A
22161G1001	Artificial Intelligence	Management and Entrepreneurship	
10205G1001	Computer Game and Simulation Programming	**Business Management and Administration**	2022-2023
10099G6801	Computer Science for Innovators and Makers – PLTW	STEM	N/A
10020G1011	Cybersecurity I	Management and Entrepreneurship	
10020G1012	Cybersecurity II	Management and Entrepreneurship	
10020G1013	Cybersecurity III	Management and Entrepreneurship	
10206G1001	Mobile Application Development	**Business Management and Administration**	2022-2023
21009G1000	Robotic Systems	**STEM**	2021-2022

General Note: Course descriptions and content standards for most courses are located on the Alabama Department of Education website at:

Alabama Achieves | Career and Technical Education | Courses of Study.

College and Career Readiness Indicator Course Matrix

Program Name	Cybersecurity and Infrastructure	Information Technology Support and Services	Computer Science
Foundation Course(s)	Information Technology Fundamentals Programming Foundation	Information Technology Fundamentals Programming Foundations	Information Technology Fundamentals Programming Foundations Exploring Computer Science Introduction to Computer Science –TEALS Introduction to Digital Literacy and Computer Science – ACCESS
Concentrator Course(s)	AP Cybersecurity Cloud and Virtualization Technologies Cybersecurity I Cybersecurity II Cybersecurity III Foundations of Operating Systems Linux Fundamentals Network Fundamentals Network Systems Administration	Cloud and Virtualization Technologies Computer Maintenance and Troubleshooting Foundations of Operating Systems Linux Fundamentals Network Fundamentals Technology Support and Services	AP Computer Science A AP Computer Science Principles AP Cybersecurity Artificial Intelligence Computer Game and Simulation Programming Computer Science, HL, IB Computer Science, SL, IB Mobile Application Development Object-Oriented Programming I Object-Oriented Programming II Programming Design and Development Robotic Systems
Capstone Course(s)	Career Pathway Project in Information Technology CTE Lab in Information Technology Internship in Information Technology	Career Pathway Project in Information Technology CTE Lab in Information Technology Internship in Information Technology	Career Pathway Project in Information Technology CTE Lab in Information Technology Internship in Information Technology

Program Name	SREB AC Informatics	Project Lead The Way (PLTW) Computer Science
Foundation Course(s)		Computer Science Essentials – PLTW
Concentrator Course(s)	SREB Computers, Networks and Databases SREB Databases in the Cloud SREB Design for the Digital World SREB Developing a Cloud Presence	AP Computer Science A AP Computer Science Principles
Capstone Course(s)		Cybersecurity – PLTW

To meet the CCR Indicator as a CTE completer, a student must earn three (3.0) credits with the grade of a "C" or higher in CTE courses that are part of an approved CTE program of study. Additional requirements are outlined in FY25-2048 Updates on Career and Technical Education Completer Status.

This matrix is intended for general guidance on the CCR completer status and is subject to change. For all CTE programming information, please refer to the CTE Cluster specific Program Guide. It contains a list of approved CTE programs, valid course numbers, approved Career Readiness Indicators (CRIs), and in demand occupations.

***Courses are listed in alphabetical order, not in sequential order.**