



2016 – 2017

PROGRAMS FOR

INFORMATION TECHNOLOGY

CLUSTER

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ALABAMA STATE DEPARTMENT OF EDUCATION
CAREER AND TECHNICAL EDUCATION
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2016 – 2017 Subject and Personnel Codes Information Technology Cluster

Information Technology Cluster	
520005	Information Technology Fundamentals
520021	Networking I
520022	Networking II
520023	Networking III
520024	Networking IV
410019	Computer Management and Support
410018	Information Technology Support and Services
430058	Alternating Current
430059	Direct Current
520038	Foundations of Informational Security
520039	Principles of Informational Security
520011	Database Design I
520012	Database Design II
520013	Database Design III
520015	Software Development
520014	Java Programming
520007	AP Computer Science A
520018	AP Computer Science Principles
520037	Senior Career Pathway Project – Information Technology

Note:

- Course descriptions and content standards for most courses are located on the Alabama Department of Education website at: <https://www.alsde.edu/sec/sct/Pages/cos-all.aspx>.

Information Technology Cluster

This cluster prepares high school students with essential knowledge and skills for pursuing careers in the following three pathways: Database Design; Network Systems and Computer Services; and Programming and Software Development. Rigorous instruction is provided to equip learners with knowledge and skills for college and career readiness.

Career Pathway Program	Database Design Program (*Must teach three courses from this program list within two years.)		
	This program is for students who are interested in pursuing careers that involve developing strategies to design, administer, fine-tune, and maintain databases, plus develop the business acumen needed to excel in the IT industry. Courses provide an overview of the knowledge and skills required in implementing operational databases that help organizations successfully manage their business processes and provide business intelligence.		
Code Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
520005	Information Technology Fundamentals	<ul style="list-style-type: none"> • Certified Internet Web (CIW) - Database Design Specialist • Microsoft Technology Associate (MTA) - Database Administration Fundamentals • Oracle Certified Associate, Database 	<ul style="list-style-type: none"> • Database Administrator • Database Architects • Data Warehousing Specialist • Information Security Analyst • Database Information Manager
520011	Database Design I		
520012	Database Design II		
520013	Database Design III		
520037	Senior Career Pathway Project-Information Technology		
Program Course Electives	Entrepreneurship Cooperative Education Seminar Workforce Essentials Personal Finance		

Career Pathway Program	Network Systems and Computer Services Program (*Must teach three courses from this program list within two years.) This program is for students who are interested in careers that involve information technology security, network analysis, planning, and implementation, including design, installation, repair, maintenance, and management of network systems. Courses provide an overview of the knowledge and skills required in network and systems administration.		
Code Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
520005	Information Technology Fundamentals	<ul style="list-style-type: none"> • C-Tech Copper Network Cabling Specialist • C-Tech Fiber Network Cabling Specialist • Certified Network Computer Technician • Cisco Certified Network Associate (CCNA) – Routing and Switching • CompTIA A+ • CompTIA Network+ • CompTIA Security+ • CompTIA IT Fundamentals • CompTIA Linux+ Powered by LPI • Electronic Technicians Association – Certified Electronics Technician (CETa) • Microsoft Certified Solutions Expert (MCSE) • Microsoft Technology Associate (MTA) – Cloud Fundamentals • Microsoft Technology Associate (MTA) – Mobility and Device Fundamentals • Microsoft Technology Associate (MTA) - Networking Fundamentals • Microsoft Technology Associate (MTA) - Security Fundamentals • Microsoft Technology Associate (MTA) - Windows Development Fundamentals • Microsoft Technology Associate (MTA) - Windows Server Admin Fundamentals 	<ul style="list-style-type: none"> • Information Security Analyst • Computer Hardware Engineers • Network Architects • Telecommunications Engineering Specialists • Network and Computer Systems Administrators • Computer Network Support Specialist • Computer and Information Research Scientist • Computer and Information Systems Manager
520021	Networking I		
520022	Networking II		
520023	Networking III		
520024	Networking IV		
410019	Computer Management and Support		
410018	Information Technology Support and Services		
430058	Alternating Current		
430059	Direct Current		
520038	Foundations of Informational Security		
520039	Principles of Informational Security		
520037	Senior Career Pathway Project-Information Technology		
Program Course Electives	Entrepreneurship Cooperative Education Seminar Workforce Essentials Personal Finance		

Career Pathway Program	Programming and Software Development Program (*Must teach three courses from this program list within two years.) This program is for students who are interested in careers that involve designing, implementing, and maintaining computer systems and software for desktop and web-based applications. Courses provide an overview of the knowledge and skills required in computer operating systems, programming languages, and software development.		
Code Number	Career Pathway Program Courses	Career Readiness Indicator (CRI)	Workforce Careers
520005	Information Technology Fundamentals	<ul style="list-style-type: none"> • Certified Internet Web (CIW) - JavaScript Specialist • Microsoft Technology Associate (MTA) - HTML5 Application Development • Microsoft Technology Associate (MTA) - Mobile Development Fundamentals • Microsoft Technology Associate (MTA) - Software Development Fundamentals • Oracle Certified Associate (OCA) - Java Programmer 	<ul style="list-style-type: none"> • Software Engineer • Applications Software Developer • Game Developer • Computer Engineer • Programmer Analyst • Project Manager • Programmer Analyst • Project Lead Specialist • Administrator Test Engineer • System Administrator • Computer Science Teacher • Information Security Analyst
520015	Software Development		
520014	Java Programming		
520007	AP Computer Science A		
TBD	AP Computer Science Principles		
520037	Senior Career Pathway Project-Information Technology		
Program Course Electives	Entrepreneurship Cooperative Education Seminar Workforce Essentials Personal Finance		