Computer Science

HS & Web Address

Minimum HS Graduation Requirements					PROGRAM OF STUDY MATRIX TEMPLATE: MIDDLE - HIGH SCHOOL – POSTSECONDARY		Career Pathway Requirements
	Grade	**English**	**Math**	**Science**	**Social Studies**	**Additional Required Courses**	**Career & Technical Courses**	**Other Required or Elective Courses**
	Student Success Plans outlining career goals should be utilized through the advisement process.						
Middle School	**7**	ELA 7	Math 7	Science 7	Social Studies 7			Electives
	8	ELA 8	Math 8	Science 8	Social Studies 8			Electives
Secondary	**9**	ELA 9	Algebra I	NGSS Aligned Physical/ Integrated Science	Civics/Geography	World Language I		This matrix represents a *sample* program of study.
	10	ELA 10	Algebra II	NGSS Aligned Biology	Economics/ Personal Finance	World Language II	Exploring Computer Science (ECS)	The LEA's program of study <u>must</u> be reflective of <u>local</u>/state high school graduation requirements and college entrance requirements.
	11	ELA 11	Geometry	NGSS Aligned Chemistry	US History	Physical Education (≥1 Credit)	AP Computer Science Principles (CSP)	
	12	ELA 12	Trigonometry/ Pre-Calculus	NGSS Aligned Physics		Health Education (≥ 0.5 Credit)	AP Computer Science A (CSA)	This matrix should be reflective of the school's <u>course sequence</u> and requirements
Postsecondary	**13**	The Department of Education has negotiated articulation agreements with: Delaware Technical Community College's Computer Information Systems, Computer network Engineering, Information Security, and Web Development programs; Delaware State University's Information Technology and Computer Sciences programs; the University of Delaware, and Wilmington University's Computer and Network Security, Software Design and Development programs, and Digital Evidence Discovery and Digital Evidence Investigation certificates.						All programs of study should meet the students' career goals with regard to required degrees and/or certifications. Required courses will
	14							
	15	Continue courses in the area of specialization.						

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	16		vary by PS institution.

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Additional Learning Opportunities			
Early Career Opportunities:	**Early College Opportunities:**	**Industry Recognized Certifications/Licenses:**	**Student Organization:**
☐ Cooperative Education ☐ Internship ☐ Other: Other Early Career Opportunities	☐ Dual Enrollment ☐ Advanced Placement ☒ Articulated Credit Delaware Technical Community College: CIS120 - Introduction to Programming (4 Credits) Delaware State University: CSCI110 - Computational Thinking I (2 Credits) CSCI120 - Elements of Computer Programming I (4 Credits) University of Delaware: CISC101 – Principles of Computing Wilmington University: SEC100 – Intro to Comp Hardware & Operations (3 Credits) SEC290 – Introduction to Programming with Python Computer Science Elective ☐ Pre-Apprenticeship ☐ Other	☒ Certification/License	☐ TSA – Technology Student Association OR ☐ BPA – Business Professionals of America

Sample Careers By Educational Level			
Employment Opportunities (Upon Completion of HS Pathway)	**Technical Training or Associate Degree**	**Bachelor's Degree**	**Master's Degree or Above**
	Desktop Technician Programmer * Programmer/Analyst*	Applications Analyst* Applications Engineer Business Analyst Computer Artist/Graphic Designer Computer Engineer Data Modeler Database Programmer HTML Programmer Software Applications Architect Software Applications Specialist Software Engineer* Systems Administrator* Systems Analyst Technical Analyst	HTML Developer/Web Design Information Technology Manager

*May require higher education depending on job responsibilities.

Feeder Middle School(s):

Colleges/Universities and Articulated Credit Agreements: Articulation agreements/Memorandums of Understanding: Delaware Technical and Community College – CIS120, Delaware State University – CSCI110 and CSCI120, the University of Delaware – CISC101, and Wilmington University – SEC100 and SEC290
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LEA Additional Graduation Requirements:

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