



# Information Technology Career Cluster

## Statewide Program of Study: Cybersecurity

### Course Information

#### Level 1

Course	Prerequisites   Corequisites	Career Clusters
<b>Principles of Information Technology*</b> 13027200 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Fundamentals of Computer Science*</b> 03580140 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Foundations of Cybersecurity</b> 03580850 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	

#### Level 2

Course	Prerequisites   Corequisites	Career Clusters
<b>Computer Science I*</b> 03580200 (1 credit)	<b>Prerequisites:</b> Algebra I <b>Corequisites:</b> Algebra I <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Internetworking Technologies I (Cisco)*</b> N1302803 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Computer Maintenance*</b> 13027300 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Principles of Information Technology <b>Recommended Corequisites:</b> Computer Maintenance Lab	
<b>Computer Maintenance + Computer Maintenance Lab*</b> 13027310 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Principles of Information Technology <b>Recommended Corequisites:</b> None	
<b>Advanced Placement (AP) Computer Science Principles*</b> A3580300 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Algebra I <b>Recommended Corequisites:</b> None	

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Level 3

Course	Prerequisites   Corequisites	Career Clusters
<b>Engineering Applications of Computer Science Principles</b> 13027540 (1 credit)	<b>Prerequisites:</b> Algebra I and at least one credit in a course from the Information Technology career cluster <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Internetworking Technologies II (Cisco)*</b> N1302804 (1 credit)	<b>Prerequisites:</b> Internetworking Technologies I <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Advanced Cloud Computing*</b> 13027520 (1 credit)	<b>Prerequisites:</b> At least one credit from a course in computer science, programming, software development, or networking systems <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Digital Forensics</b> 03580360 (1 credit)	<b>Prerequisites:</b> Foundations of Cybersecurity <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Discrete Mathematics for Computer Science*</b> 03580370 (1 credit)	<b>Prerequisites:</b> Algebra II <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Networking*</b> 13027400 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab <b>Recommended Corequisites:</b> Networking Lab	
<b>Networking + Networking Lab*</b> 13027410 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab <b>Recommended Corequisites:</b> None	

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### Course Information

Level 3

Course	Prerequisites   Corequisites	Career Clusters
<b>Advanced Placement (AP) Computer Science A*</b> A3580110 (1 math credit) A3580120 (1 LOTE credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Algebra I or a student should be comfortable with functions and the concepts found in the uses of functional notation such as $f(x) = x + 2$ and $f(x) = g(h(x))$ <b>Recommended Corequisites:</b> None	
<b>International Baccalaureate (IB) Computer Science Standard Level*</b> I3580200 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Computer Science I, Algebra II <b>Recommended Corequisites:</b> None	
<b>International Baccalaureate (IB) Computer Science Higher Level*</b> I3580310 (1 math credit) I3580320 (1 LOTE credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Computer Science I, Algebra II <b>Recommended Corequisites:</b> None	

Level 4

Course	Prerequisites   Corequisites	Career Clusters
<b>Independent Study in Technology Applications*</b> First Time Taken: 03580900 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> A minimum of one credit from the courses in the Information Technology career cluster <b>Recommended Corequisites:</b> None	 
<b>Independent Study in Evolving/Emerging Technologies*</b> First Time Taken: 03581500 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> A minimum of one credit from the courses in the Information Technology career cluster <b>Recommended Corequisites:</b> None	 
<b>Cybersecurity Capstone</b> 03580855 (1 credit)	<b>Prerequisites:</b> Foundations of Cybersecurity <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Career and Technical Education Project-Based Capstone*</b> First Time Taken: 12701101 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	

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Level 4

Course	Prerequisites   Corequisites	Career Clusters
<b>Practicum in Information Technology*</b> First Time Taken: 13028000 (2 credits) Second Time Taken: 13028010 (2 credits)	<b>Prerequisites:</b> A minimum of two high school information technology (IT) courses <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Practicum in Information Technology + Extended Practicum in Information Technology*</b> First Time Taken: 13028005 (3 credits) Second Time Taken: 13028015 (3 credits)	<b>Prerequisites:</b> A minimum of two high school information technology (IT) courses. <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Practicum in Engineering*</b> First Time Taken: 12756080 (2 credits) Second Time Taken: 12756090 (2 credits)	<b>Prerequisites:</b> Algebra I and Geometry and a minimum of two credits with at least one course in a Level 2 or higher course from the Engineering career cluster <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Practicum in Engineering + Extended Practicum in Engineering*</b> First Time Taken: 12756085 (3 credits) Second Time Taken: 12756095 (3 credits)	<b>Prerequisites:</b> Algebra I and Geometry and a minimum of two credits with at least one course in a Level 2 or higher course from the Engineering career cluster <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Career Preparation for Programs of Study*</b> First Time Taken: 12701121 (2 credits)	<b>Prerequisites:</b> At least one Level 2 or higher CTE course <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
<b>Career Preparation for Programs of Study + Extended Career Preparation*</b> First Time Taken: 12701141 (3 credits)	<b>Prerequisites:</b> At least one Level 2 or higher CTE course <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	

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