



Fundamentals of Computer Science Advanced

Year at a Glance (YAG) 2024 – 2025



FIRST SEMESTER		SECOND SEMESTER	
First Nine Weeks		Third Nine Weeks	
<p>TEKS</p> <p>126.34 Computer Science</p> <p>(a)(b)1-3</p> <p>(c)(1)A-I</p> <p>(c)(2)A-G</p> <p>(c)(3)A-H</p> <p>(c)(4)A-Z</p> <p>(c)(4)AA-MM</p> <p>(c)(5)A-C</p> <p>(c)(6)A-F</p>	<p>Unit 1 - Digital Information</p> <p>Welcome to CSP</p> <p>Representing Information</p> <p>Circle Square Patterns</p> <p>Binary Numbers</p> <p>Overflow and Rounding</p> <p>Representing Text</p> <p>Black and White Images</p> <p>Color Images</p> <p>Lossless Compression</p> <p>Lossy Compression</p> <p>Intellectual Property</p> <p>Project - Digital Information Dilemmas - Parts 1-2</p> <p>Assessment Day</p> <p>Unit 2 - The Internet</p> <p>Welcome to the Internet</p> <p>Building a Network</p> <p>The Need for Addressing Routers and Redundancy Packets</p> <p>HTTP and DNS</p> <p>Project - Internet Dilemmas - Parts 1-2</p> <p>Assessment Day</p> <p>Unit 3 - Intro to App Design</p> <p>Intro to Apps</p> <p>Introduction to Design Mode</p> <p>Project - Designing an App - Parts 1-2</p> <p>The Need for Programming languages</p> <p>Intro to Programming</p> <p>Debugging</p> <p>Project - Designing an App - Parts 3-5</p> <p>Assessment Day</p>	<p>TEKS</p> <p>126.34 Computer Science</p> <p>(a)(b)1-3</p> <p>(c)(1)A-I</p> <p>(c)(2)A-G</p> <p>(c)(3)A-H</p> <p>(c)(4)A-Z</p> <p>(c)(4)AA-MM</p> <p>(c)(5)A-C</p> <p>(c)(6)A-F</p>	<p>Unit 5 - CONT</p> <p>Project - Hackathon - Parts 1-3</p> <p>Project - Hackathon - Parts 4-5</p> <p>Assessment Day</p> <p>Unit 6 - Algorithms</p> <p>Algorithms Solve Problems</p> <p>Algorithm Efficiency</p> <p>Unreasonable Time</p> <p>The Limits of Algorithms</p> <p>Parallel and Distributed Algorithms</p> <p>ASSESSMENT DAY</p> <p>Unit 7 - Parameters, Return, and Libraries</p> <p>Parameters and Return Explore</p> <p>Parameters and Return Investigate</p> <p>Parameters and Return Practice</p> <p>Parameters and Return Make Libraries Explore</p> <p>Libraries Investigate</p> <p>Libraries Practice</p> <p>Project - Make a Library - Parts 1-3</p> <p>Assessment</p> <p>Unit 8 - Create PT Prep</p> <p>Create PT - Review the Task</p> <p>Create PT - Deep Dive</p> <p>Create PT - Make a Plan</p> <p>Create PT - Complete the Task (12 total class hours)</p>

Second Nine Weeks		Fourth Nine Weeks	
<u>TEKS</u>		<u>TEKS</u>	
126.34 Computer Science	Unit 3 - Intro to App Design Intro to Apps Introduction to Design Mode Project - Designing an App - Parts 1-2 The Need for Programming languages	126.34 Computer Science	Unit 9 - Data Learning from Data Exploring One Column Filtering and Cleaning Data Exploring Two Columns Big, Open, and Crowdsourced Data
(a)(b)1-3	Intro to Programming	(a)(b)1-3	Machine Learning Algorithmic Bias
(c)(1)A-I	Debugging Project - Designing an App - Parts 3-5	(c)(1)A-I	Project - Tell A Data Story - Parts 1-2 Assessment Day
(c)(2)A-G	Assessment Day	(c)(2)A-G	Unit 10 - Cybersecurity and Global Impact
(c)(3)A-H	Unit 4 - Variables, Conditionals, and Functions	(c)(3)A-H	Project - Innovation Simulation - Parts 1-2 Data Policies and Privacy The Value of Privacy Project - Innovation Simulation - Part 3
(c)(4)A-Z	Variables Explore Variables Investigate	(c)(4)A-Z	Security Risks - Part 1-2 Project - Innovation Simulation - Part 4 Protecting Data - Parts 1-2
(c)(4)AA-MM	Variables Practice Variables Make Conditionals Explore	(c)(4)AA-MM	Project - Innovation Simulation - Parts 5-7 Assessment Day
(c)(5)A-C	Conditionals Investigate	(c)(5)A-C	
(c)(6)A-F	Conditionals Practice Conditionals Make Functions Explore/Investigate Functions Practice Functions Make Project - Decision Maker App - Parts 1 - 3 Assessment Day	(c)(6)A-F	
	Unit 5 - Lists, Loops, and Traversals Lists Explore Lists Investigate Lists Practice Lists Make Loops Explore Loops Investigate Loops Practice Loops Make Traversals Explore Traversals Investigate Traversals Practice Traversals Make		