

CompuScholar, Inc.

Alignment to the Mississippi Curriculum Standards

"Exploring Computer Science"

Mississippi Standards Information:

CS Page	Mississippi Computer Science Education Page
Standards Link:	2020 Exploring Computer Science_Final.docx

Relevant CompuScholar Courses:

Course Title:	Digital Savvy , ISBN 978-0-9887070-8-5 Course Description and Syllabus
Course Title:	Web Design , ISBN 978-0-9887070-3-0 Course Description and Syllabus
Course Title:	Python Programming , ISBN 978-1-946113-00-9 Course Description and Syllabus
Course Title:	Java Programming (Abridged) , ISBN 978-0-9887070-4-7 Course Description and Syllabus
Course Title:	Java Programming (AP) , ISBN 978-0-9887070-2-3 Course Description and Syllabus
Course Title:	Windows Programming with C# , ISBN 978-0-9887070-0-9 Course Description and Syllabus
Course Title:	Unity Game Programming , ISBN 978-0-9887070-7-8 Course Description and Syllabus

Mississippi's Exploring Computer Science standards cover a diverse mixture of topics over 7 units. This document recommends the CompuScholar course(s) best suited to covering each topic. Schools may use any combination of course material that best fits the desired educational experience.

Mississippi "Exploring Computer Science" Standards

Unit 1: Orientation and Ongoing Skills	COMPUSCHOLAR ALIGNMENT
1. Identify school policies and safety procedures related to ECS.	Digital Savvy
2. Use an online learning management system.	All CompuScholar courses are delivered with an online LMS.
3. Recognize opportunities to participate in student organizations related to technology and computer science.	Digital Savvy and other courses
4. Demonstrate knowledge of 21st century skills.	Digital Savvy and other courses
5. Demonstrate effective public speaking.	Digital Savvy

6. Explore career opportunities within computer science in the specialty areas of Programming, cybersecurity, data science, robotics, artificial intelligence, human-computer interaction, and Web development	All CompuScholar courses contain relevant career exploration opportunities
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Unit 2: Human-Computer Interaction	COMPUSCHOLAR ALIGNMENT
1. Explain the difference between computers and computing.	Digital Savvy
2. Evaluate the results of Web searches and the reliability of information found on the internet.	Digital Savvy
3. Analyze the effects of computing on society within economic, social, and cultural contexts.	Digital Savvy
4. Describe the features of appropriate data sets for specific problems.	Digital Savvy
5. Explain how computers can be used as tools for analyzing and visualizing data, modeling,	Digital Savvy

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Unit 3: Problem Solving	COMPUSCHOLAR ALIGNMENT
1. Understand the problem-solving process.	Digital Savvy and other courses
2. Design and interpret algorithms.	Digital Savvy and other courses
3. Demonstrate an understanding of binary.	Digital Savvy and other courses
4. Understand simple search algorithms.	Windows C# and Java Programming
5. Explain sorting algorithms.	Windows C# and Java Programming
6. Describe minimum spanning trees.	N/A

Unit 4: Web Design	COMPUSCHOLAR ALIGNMENT
1. Construct Web pages to address specified objectives.	Digital Savvy and Web Design
2. Design a Web page using Hypertext Markup Language (HTML).	Digital Savvy and Web Design
3. Style a Web page using Cascading Style Sheets (CSS).	Web Design
4. Create a multipage website using HTML and CSS as a final project.	Web Design

Unit 5: Introduction to Programming	COMPUSCHOLAR ALIGNMENT
1. Use appropriate algorithms to solve a problem.	Digital Savvy and all programming courses
2. Design, code, test, and execute a program that corresponds to a set of specifications.	Digital Savvy and all programming courses
3. Apply appropriate use of programming structures.	All programming courses
4. Locate and correct errors in a program.	All programming courses
5. Use abstraction to reduce complexity.	All programming courses
6. Create a program as a final project that incorporates unit objectives as a summative assessment.	All programming courses

Unit 6: Artificial Intelligence	COMPUSCHOLAR ALIGNMENT
1. Summarize artificial intelligence (AI) terms and concepts.	Digital Savvy and Unity Game Programming
2. Describe how AI is used and its impact.	Digital Savvy and Unity Game Programming
3. Investigate an AI system.	Digital Savvy and Unity Game Programming
4. Recognize and understand AI data and bias.	N/A

Unit 7: Robotics	COMPUSCHOLAR ALIGNMENT
1. Identify the criteria that describes a robot and determines if something is a robot.	N/A (In order to reduce logistical burdens on schools, CompuScholar courses do not teach subjects that require additional hardware.)
2. Build, code, and test a robot that solves a stated problem.	