Course Number
CSCI 2053

Course Title
JavaScript

Course Description
Prerequisite: CSCI 2803 HTML/CSS XML or permission of instructor. An introduction to the JavaScript language, which is used to develop dynamic web pages with features, such as forms, slide shows, and mouse-over effects. This class builds upon the HTML/CSS/XM course. Student will need a basic understanding of HTML/CSS before attempting this course. This is a hands-on course, with the majority of work being done on a PC computer. Students will learn the basic of JavaScript, its used and security issues, as well as good design principles pertaining to accessibility, and code functionality across multiple platforms and devices, including the exploration of mobile app development.

College Mission
South Arkansas Community College promotes excellence in learning, teaching, and service; provides lifelong educational opportunities; and serves as a cultural, intellectual, and economic resource for the community.

College Wide Student Learner Outcomes

☒Critical Thinking   ☐Responsibility   ☐Communication

ACTS Course☐   **Program Cours**e ☒   Computer Information Technology

ACTS Outcomes

Program Outcomes

PO1   Troubleshooting: Identify and resolve technical issues using appropriate technologies or analytical tools.
PO2   Business communications: Demonstrate communications skills in a business environment.
PO3   Hardware/Software Skills: Demonstrate proficiency as defined by the CIT department, in recognized industry software or hardware.
PO4   Business Ethics: Identify situations that present ethical dilemma inherent in information technology.

Course Learner Outcomes

CLO #	Course Learner Outcomes (CLO)	Unit Outcomes/ Competencies	ACTS Outcomes	Program Outcomes	Critical Thinking	Communication	Responsibility	Assessment
CLO 1	Incorporate JavaScript code into HTML code	U1 LO		PO3		C3		Final project
CLO 2	Use JavaScript variables	U1 LO, U2 LO		PO3				Final project
CLO 3	Create JavaScript objects for input and output	U1 LO, U2 LO		PO3				Final project
CLO 4	Perform calculations within JavaScript code	U3 LO		PO3				Final project

CLO 5	Create JavaScript decision statements	U2 LO		PO 3	CT 5			Final project
CLO 6	Create graphics using JavaScript	U4 LO		PO 3				Final project

Unit Outcomes/ Competencies/ Objectives

U1LO – Introduction to JavaScript:
1. Coordinates Grid
2. Commands Grid
3. Alert command
4. Robot challenge
5. Variables Grid
6. Variables & prompts
7. If Statement Grid
8. If statements
9. Increment Grid
10. Number variables

U2LO – Variables, If Statements, Loops:
1. Introduction: Intro to lessons 2-10
2. Alert box: Display messages with alert
3. Math rules: Order of operation math rules
4. Math practice: Doing basic math calculations
5. Variables: Store data with variables
6. Bug hunt: Read error messages, fix mistakes
7. Robot challenge: Move a robot to its goal
8. Prompt box: Ask questions with prompt
9. Adding strings: Joining strings and numbers with +
10. Review quiz: Review variable name rules
11. Introduction 2: Intro to lessons 12-20
12. If statements: Check user responses with if statements
13. Boolean values: true & false
14. Confirm box: The confirm command
15. If practice: if statement practice
16. Robot challenge 2: Move 2 robots to their goal
17. Null value: The special value null
18. Bug hunt 2: Read error messages, fix mistakes
19. If conditions: Combining conditions with && and ||
20. Review quiz 2: Review terminology
21. Introduction 3: Intro to lessons 22-30
22. While loop: Repeat code with while loops
23. While loop 2: Loop a set number of times
24. While quiz: While loops quiz
25. Bug hunt 3: Fix infinite loops
26. Robot challenge 3: Simplify code with while loops
27. While quiz 2: While loop conditions
28. While loop 3: Weekly wage calculator
29. While loop 4: Create a math quiz
30. Review quiz 3: Review key concepts
31. Introduction 4: Intro to lessons 2-10
32. Testing: Handle both valid and invalid user input
33. Testing 2: Using isNaN and Number functions
34. BMI calculator: Create a BMI calculator
35. Refactor code: Making bad code good
36. Loop break: Use break to exit loops
37. For loop: Learn to use for loops
38. For quiz: Learn to understand for loops
39. Robot challenge 4: Practice for and while loops
40. Review quiz 4: Review lessons 31-39

U3LO – Strings, Functions, Arrays, Math
01. Introduction 1: Intro to lessons 2-10
02. ASCII: Encoding letters with ASCII codes
03. String functions: String length & chart
04. Practice: alert, prompt & string review
05. Bug hunt: Fix broken code
06. Robot challenge 5: Move robots with if statements
07. String functions 2: to Lower Case, to Upper Case, substring
08. String functions 3: String functions practice
09. Increment values: Create a multi-choice quiz
10. Review quiz 1: Review strings
11. Introduction 2: Intro to lessons 12-20
12. Functions: Functions introduction
13. Functions quiz: Learn to understand functions
14. Graphics 1: Intro to drawing
15. Function bugs: Fix broken functions
16. Scope quiz: Variable scope and parameters
17. Graphics 2: Drawing rectangles
18. Functions 2: Functions practice
19. Functions 3: Functions practice
20. Review quiz 2: Review lessons 11-19
21. Introduction 3: Intro to lessons 22-30
22. Math object: Use Math object functions
23. Random numbers: Generate random numbers
24. Graphics 3: Draw the Pyramids of Giza
25. Math object bugs: Fix Math object bugs
26. Random 2: Create a fortune teller
27. Graphics refactor: Refactor graphics code
28. Math refactor: Refactor a dice game called Chuck-A-Luck
29. Random 3: Create a number guessing game
30. Review quiz 3: Review lessons 21-29
31. Introduction 4: Intro to lessons 32-40
32. Sorting arrays: Sorting and printing lists of strings
33. Array practice: Practice creating arrays
34. Refactor arrays: Refactor arrays with graphics
35. Array quiz 2: Arrays practice
36. Arrays 2: Functions with an array as a parameter
37. Modulus: Using the modulus operator
38. Array bugs: Fix array code
39. Pig Latin: Create a pig Latin translator
40. Review quiz 4: Review lessons 31-39

U4LO – Events, Animations, GUIs, Classes
01. Intro: Learn about mouse event as you build a basic painting app
02. Practice: Test some apps and figure out how they work
03. Apply: Use the mouse to create, move and delete shapes
04. Fix Code: Find and fix the bugs in a series of broken apps
05. Review: Make two more apps without any help
06. Intro: Learn about frame events by bouncing a ball around the screen
07. Practice: Make a timing game using animation and mouse events
08. Apply: Take down the satellites in your next homemade game
09. Fix Code: Fix four more broken animation based apps
10. Review: Get artistic as you create another pair of animation apps
11. Intro: Basic text editor
12. Practice: Toggle switch
13. Apply: Typing tutor
14. Fix Code: Traffic light
15. Review: Digital whiteboard
16. Flying a Spaceship: Move objects smoothly with Key.is Down
17. Watch the Clock: Rotate the hands on a clock
18. Dropping Bombs: Do collision detection using Hit Test

19. Etch A Sketch: Adding vectors
20. Mini Golf: Practice vector geometry
21. Intro: Introduction to Classes
22. Tank Duel I: Create a class that moves a tank
23. Tank Duel II: Learn how to fix errors using the debugger
24. Banking & Scoring: Learn to understand classes
25. Digital Scoreboard: Create classes for a digital scoreboard

Assessment Description(s)
Lessons are grouped together into sections. Each section has a quiz. The final project includes much of what was covered in the lessons.

Materials and Technological Requirements
Access to Code Avengers "Introduction to JavaScript" and "JavaScript Levels 1-3"
Access to high speed internet
Access to Blackboard
Access to SouthArk email

Class Attendance Policy
Students are expected to attend all classes in which they are enrolled. If a student is absent from a class session, it is the student's responsibility to make arrangements to complete or make up any work missed. No make-up work for missed classes will be allowed without the approval of the instructor. Students who enroll late must assume all responsibility for work missed. Classes not attended as a result of late enrollment may be counted toward excessive absences. Students not attending the entire class period may be counted absent for that period. An instructor may drop students with a grade of "WE" if students have been absent for an excessive number of days. Warning letters will be sent to the students advising them of the consequences of nonattendance and urging them to contact their instructors immediately. Excessive absences are defined as follows:

Regular Semester
Courses which meet once a week .... 2 absences
Courses that meet twice per week .... 3 absences
Courses that meet four times per week .... 5 absences

Summer Session
Courses that meet four times per week in a five week session .... 3 absences
Courses which meet two evenings per week in a 10 week session .... 3 absences

Students enrolled in special programs or individualized instruction should contact their program director/instructor regarding specific attendance requirements for the program/course. Some of the selective-admission, health-science programs have specific criteria regarding attendance. Students are encouraged to refer to program policies in these matters.

Jury Duty/Military/Official School Function
Scheduled absences are those that occur due to college-related activities or as a result of summons to jury duty or military duty. Classes missed as a result of scheduled absences will not be counted as excessive absences if the instructor is notified and provided documentation prior to the absence(s). Make-up work for scheduled absences will be at the discretion of the instructor.

In all instances, documentation must be provided to the instructor within 24 hours of receipt. Documentation should come from an appropriate party on letterhead or other official stationery with a signature and contact information. Documentation should list the corresponding dates of the leave.

Medical leave
For medical-related absences, documentation must include written notice from the treating medical professional documenting time needed off related to medical reasons and time student may resume classes. The medical reason does not need to be listed on the documentation; the documentation must include only that there is a medical reason, the amount of time the student needs to be absent, and the time the student should be able to return to classes. Students who elect to work at home while on excused leave must meet with their instructors to make arrangements to do so. Working on coursework while on medical leave is not a requirement but can be requested by students. If students request that they be allowed to work at home while on an excused leave, the instructor will make every reasonable effort to ensure that the student is able to do so.

For students who have a medical condition necessitating time off or accommodation:

1) They may work at home on assignments if they choose to if on medical leave approved by a medical professional
2) Receive appropriate accommodations related to coursework (i.e., excused from labs with potentially harmful chemicals, have a larger desk, etc.)
3) Resume their studies where they left off once they return to classes
4) Be allowed to make up any missed work related to medical leave
5) Receive incompletes on their transcripts until coursework is completed, according to the incomplete grade contract.
6) Be given a reasonable time frame in which to complete missed coursework

Academic Honesty Policy
Students enrolled at South Arkansas Community College are expected at all times to uphold standards of integrity. Students are expected to perform honestly and to work in every way possible to eliminate academic dishonesty. Academic dishonesty includes cheating and plagiarism, which are defined as follows:

- Cheating is an attempt to deceive the instructor in his/her effort to evaluate fairly an academic exercise. Cheating includes copying another student's homework, class work, or required project (in whole or in part) and/or presenting another's work as the student's own. Cheating also includes giving, receiving, offering, and/or soliciting information on a quiz, test, or examination.

- Plagiarism is the copying of any published work such as books, magazines, audiovisual programs, electronic media, and films or copying the theme or manuscript of another student. It is plagiarism when one uses direct quotations without proper credit or when one uses the ideas of another without giving proper credit. When three or more consecutive words are borrowed, the borrowing should be recognized by the use of quotation marks and proper parenthetical and bibliographic notations.

If, upon investigation, the instructor determines that the student is guilty of cheating or plagiarism, the following penalties will apply:

- The student will receive a penalty of no less than a zero on the work in question.
- The instructor will submit a Student Academic Misconduct Form, written report of the incident, to the appropriate dean.
- The dean will submit form to Vice President for Learning to determine disciplinary action.
- The Vice President for Learning will determine whether further disciplinary action will be taken.
- All decisions may be appealed for review through the college's academic appeals procedure.

Equal Opportunity-Affirmative Action Statement
South Arkansas Community College does not discriminate on the basis of age, race, color, creed, gender, religion, marital status, veteran's status, national origin, disability, or sexual orientation in making decisions regarding employment, student admission, or other functions, operations, or activities.

Library Services
Library Homepage: http://southark.libguides.com/homepage Library Contact: LibraryStaff@southark.edu or 870.864.7115

Procedures to Accommodate Students with Disabilities:
If you need reasonable accommodations because of a disability, please report this to the Vice President of Student Services with proper documentation. . VPSS Contact: 870.875.7262

The Early Alert System
In an effort to ensure student retention and success, South Arkansas Community College employs an Early Alert System to identify and support at-risk students as soon as possible in a given semester. The intent of Early Alert is to provide this assistance while there is still time to address behaviors or issues that have the potential of preventing students from completing their courses and degree plans. Students referred through the Early Alert System will be required to work on a corrective action plan with their student advising coach and to include attendance accountability and mandatory academic tutoring either in the academic division or in the Testing and Learning Center (TLC).

Once the Student Advising Coach has met with the referred student, and again when the student has met the prescribed corrective actions, the coach will update the Early Alert System so that the instructor is kept informed of the progress in resolving issues.

Behavioral Review Team
At South Arkansas Community College (SouthArk), we are committed to proactive leadership in student wellbeing and campus safety. By focusing on prevention and early intervention with campus situations that involve any person

experiencing distress or engaging in harmful or disruptive behaviors, the BRT will serve as the coordinating hub of existing resources to develop intervention and support strategies and offer case management. Students, faculty, staff, and campus guests are encouraged to report any person on campus who is a concern. BRT Contact: 870.875.7262 BRT@southark.edu

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