

**Course Information**

Course Number: AWD1000

Course Name: Web Development Technologies

Semester: Fall 2023-2024

Class Day(s): Monday- Friday

Class Time: 8:05 AM-11:55 AM

Number of Sessions: 80

Building/Room: Online

**Instructor Information**

Name: Jeff Scott

Office Phone: (314) 286-3675

Cell Phone:

E-mail: jpscott@ranken.edu

Office Location: Online Course

Office Hours: 7 AM – 8 AM Monday – Friday

**Program Level Student Outcomes**

* Develop and design websites that use the latest versions of HTML, CSS, JavaScript, and modern JavaScript libraries.
* Develop, troubleshoot, and implement applications using object-oriented programming principles and fundamentals.
* Build data-driven web applications using JavaScript, Node.js, and Database Management Systems.
* Utilize a version control system to manage code.

**Course Materials and Texts**

Book: TITLE: [Murach's HTML and CSS (5th Edition)](https://www.murach.com/shop/murachs-html5-and-css3-4th-edition-detail)

AUTHOR: Anne Boehm, Zak Ruvacaba

PUBLISHER: Murach

ISBN-13: 978-1-943872-86-2

Book: TITLE: [Murach's JavaScript and jQuery (4th Edition)](https://www.murach.com/shop/murach-s-javascript-and-jquery-3rd-edition-detail)  
AUTHORS: Mary Delamater, Zak Ruvalcaba  
PUBLISHER: Murach  
ISBN-13: 978-1-943872-62-6

**Course Description**

This web-based course includes the technologies needed to develop modern, mobile websites. Students get hands-on experience in the latest HTML, CSS, and JavaScript technologies. This course will introduce and cover current content management systems, accessibility concepts, web ethics, e-commerce, website search engine optimization, and mobile website technologies. The focus is to build students’ abilities and confidence through hands-on exercises and real-world projects. This course will provide the base for a strong future in web development. Fourteen credit hours

**Course Level Student Outcomes**

* Write standards compliant HTML5 and CSS3 to structure and style a web page
* Use CSS3 to position elements on a web page using responsive web design techniques including Bootstrap
* Create websites that include images, lists, tables, video, audio, and icons
* Develop web forms that use JavaScript to respond to events
* Solve problems using fundamental programming concepts including variables, branching, and loops
* Manipulate the DOM using JavaScript and jQuery

**Policies**

See the Ranken Technical College Student Handbook.

See the [Ranken Technical College Student Handbook](http://ranken.edu/student-life/student-handbook/).

**Attendance**

Students are expected to attend all scheduled course sessions. Students are also expected to arrive on time and remain for the duration of each course session. Students are responsible for monitoring their attendance record on InsideRanken.

**Seated/Face to Face Courses:**

All students in all departments will be held to the following standards:

* The allowable number of absences is based on the total number of sessions the course is scheduled to meet. The allowable number of absences for this course will be \*6\*, as dictated in the student handbook.
* Cancelled course sessions and holidays do not affect the allowable number of absences. The allowable number is always based upon the total number of sessions the course is scheduled to meet.
* Arriving after the scheduled start time or leaving before the scheduled end time will result in a tardy designation for attendance. A tardy is defined as a period of up to 10 minutes during the scheduled class time when a student is not present.
  + Every two tardies will count as one absence. (Two tardies = 1 absence, four tardies = 2 absences, six tardies = 3 absences, etc.)
  + Students missing more than 10 minutes of the course will be counted absent.
* Students will be allowed to make up reasonable academic work missed due to an absence. Reasonable work includes homework, quizzes, and tests. It is not reasonable to make up missed shop and lab hands-on work.

**Online Courses:**

All students in all departments will be held to the following standards:

* The allowable number of absences is 2. After that, the student will be dropped from the class, but can appeal.

**Academic Honesty**

Academic honesty is essential to the education process at Ranken Technical College. Thus, academic dishonesty is a basis for disciplinary action or dismissal. Such acts include:

- Cheating on any type of exam

- Cheating on homework assignments

- Helping another student to cheat on any type of exam

- Helping another student to cheat on homework assignments

- Illegal or unauthorized possession of exams or restricted material

- Illegal or unauthorized changes to a graded assignment or exam

- Plagiarism (including in your work, another’s work that is not properly cited)

**Course Grading**

(Percentage breakdown of projects, tests, homework, etc.)

**Overall Grade Scale**

A 92.5-100% Excellent

B+ 89.5-92.49% Very Good

B 83.5-89.49% Good

C+ 80.5-83.49% Above Average

C 74.5-80.49% Average

D 69.5-74.49% Unsatisfactory. Does not satisfy course requirement

F BELOW 69.49% Failing

**Workload Table**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Category | Reading | Homework | Lecture & Discussion | Quiz | Exam | Projects | Total |
| Instructor Led Lecture & Discussion |  |  | 40 |  | 20 | 260 | 320 |
| Out-of-class participation by student | 65 | 15 |  |  | 10 |  | 90 |
| Lab/Shop |  |  |  |  |  |  |  |

**Inside Ranken**

Students are expected to use Inside Ranken (<http://insideranken.org>) to gain access to general course information, digital course materials, current attendance record, current grades, and online assignments. Students are to notify their instructor immediately of any error in grades or attendance.

**General College Information**

Tutorial Assistance

Students experiencing academic difficulties are encouraged to use the tutorial services offered by the Student Success Center (SSC) located on the top floor on the Finney Building and through the Gray Bridge. You can contact the SSC at (314) 286-4891. Contact Patrick Glynn, Admissions Counselor - Ranken Wentzville at (314)286-3306 or [pmglynn@ranken.edu](mailto:jwsutton@ranken.edu) for Ranken Wentzville-specific information.

Students with Disabilities

Ranken Technical College makes every effort to accommodate individuals with disabilities. To obtain accommodations, students must identify themselves to the Student Success Center (SSC) and provide written documentation of their disabilities from qualified professionals or agencies. You can contact the SSC at (314) 286-4891. Contact Patrick Glynn, Admissions Counselor - Ranken Wentzville at (314)286-3306 or [pmglynn@ranken.edu](mailto:jwsutton@ranken.edu) for Ranken Wentzville-specific information.

Career Services

The Career Services department is available to help students with resume writing and job placement. You can contact Career Services at (314) 286-3665. Contact Patrick Glynn, Admissions Counselor - Ranken Wentzville at (314)286-3306 or [pmglynn@ranken.edu](mailto:jwsutton@ranken.edu) for Ranken Wentzville-specific information.

Snow Days and Campus Emergencies

If classes are canceled due to weather or an emergency, students will be notified via the notification system which will generate a text message to the assigned cell phone and/or email address. Notifications are also posted on the College website and Inside Ranken web portal.

Notifications are active for the time-period you specify during the sign-up process. It is recommended that you sign up for a one-year period. If you are still actively taking classes at Ranken after this time-period, your notifications can be revalidated for an additional period of time. This will also allow you to verify that your information is correct on a yearly basis.

**Please Note:** You may incur charges from your cellular provider for each text message.

We will make every effort to contact you when classes are cancelled. UNLESS YOU ARE ADVISED OTHERWISE, YOU SHOULD ASSUME THAT CLASSES WILL BE HELD.

**Course Schedule**

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| --- | --- | --- |
| Day01 08/28/2023 | **Course Introduction**   * Class Introduction * Student Handbook Review * Work Ethic Grade Sheet * Intro to HTML5/CSS3/JavaScript * Intro to jQuery * Intro to Bootstrap * Intro to Electronic Portfolios * Intro to Git   **Lecture & Lab Chapter 1**  **General Objective: Introduction to Web Development**  **Specific Objectives:**   * Describe the components of a web application. * Distinguish between the Internet and an intranet. * Describe HTTP requests and responses. * Distinguish between the way a web server processes static web pages and dynamic web pages. * Name the five major web browsers. * Describe the use of JavaScript. * Distinguish between HTML and CSS.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | **Homework: Chapters 1 – 3**  **Due 9/3/2023**  **Lab: Chapters 1 – 3 Labs**  **Due 9/3/2023**  **Written Tests: Chapters 1 – 3**  **Due 9/3/2023** |
| Day02 08/29/2023 | **Lecture & Lab Chapter 2**  **General Objective: How to code, test, and validate a web page**  **Specific Objectives:**   * Describe the tag syntax of HTML elements in an HTML document. * Describe tag syntax of CSS elements in an HTML document. * Describe/demonstrate the use of the HTML validation tool. * Describe/demonstrate the use of the CSS validation tool.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | **Homework: Chapters 1 – 3**  **Due 9/3/2023**  **Lab: Chapters 1 – 3 Labs**  **Due 9/3/2023**  **Written Tests: Chapters 1 – 3**  **Due 9/3/2023** |

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| Day03 08/30/2023 Day04 08/31/2023 | **Lecture & Lab Chapter 3**  **General Objective: Use HTML to structure a web page**  **Specific Objectives:**   * Describe the use of the head and body elements in an HTML document. * Describe these types of HTML tags: opening, closing, and empty. * Describe the use of attributes within HTML tags. * Describe the use of HTML comments and whitespace.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Explain how user style sheets, !important rules, and specificity are used in the cascade order for applying rule sets   **NO CLASSES Monday 1/16/2022 (MLK Day)**  **Chapters 1 – 3 Hands-On Test #1**  **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Explain how user style sheets, !important rules, and specificity are used in the cascade order for applying rule sets | **Homework: Chapters 1 – 3**  **Due 9/3/2023**  **Lab: Chapters 1 – 3 Labs**  **Due 9/3/2023**  **Written Tests: Chapters 1 – 3**  **Due 9/3/2023**  **Homework: Chapters 1 – 3**  **Due 9/3/2023**  **Lab: Chapters 1 – 3 Labs**  **Due 9/3/2023**  **Written Tests: Chapters 1 – 3**  **Due 9/3/2023** |
| Day05 09/01/2023 | **Lecture & Lab Chapter 4**  **General Objective: Use CSS to format a web page**  **Specific Objectives:**   * Describe three ways to include CSS in a web page. * Explain why it’s usually best to use an external style sheet for formatting a page. * Describe the changes you need to make to the HTML and CSS files if you want to use CSS to format the HTML5 semantic elements in versions of Internet Explorer before version 9. * Describe the purpose of the normalize.css style sheet. * Distinguish between absolute and relative units of measurement. * Describe three ways to specify color in CSS and describe how CSS3 expands upon that. * Describe these types of selectors: universal, type, id, class, descendant, child, sibling, pseudo-class, and pseudo-element * Describe one accessibility guideline for using pseudo-class selectors.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | **Homework: Chapters 1 – 3**  **Due 9/3/2023**  **Lab: Chapters 1 – 3 Labs**  **Due 9/3/2023**  **Written Tests: Chapters 1 – 3**  **Due 9/3/2023**  **Homework: Chapters 4 – 6**  **Due 9/10/2023**  **Lab: Chapters 4 – 6 Labs**  **Due 9/10/2023**  **Written Tests: Chapters 4 – 6**  **Due 9/10/2023** |
| Day06 09/05/2023 | **Lecture & Lab Chapter 5**  **General Objective: Use the CSS box model**  **Specific Objectives:**   * Describe the use of the CSS box model. * Explain how the CSS box model can be used to control the spacing between the headings and paragraphs on a page. * Describe the effect of “collapsed margins”. * Describe the use of a reset selector. * Describe these properties for a block element in a box model: height, width, margin, padding, border, background color, and background image. * Describe these CSS3 features for formatting boxes: rounded corners, shadows, background gradients.   **Course Outcome Alignment**  Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | **Homework: Chapters 4 – 6**  **Due 9/10/2023**  **Lab: Chapters 4 – 6 Labs**  **Due 9/10/2023**  **Written Tests: Chapters 4 – 6**  **Due 9/10/2023** |
| Day07 09/06/2023 | **Lecture & Lab Chapter 6**  **General Objective: Use CSS for page layout**  **Specific Objectives:**   * Describe the use of floating for page layout. * Describe the use of the clear property in a CSS rule set. * Distinguish between fixed and fluid page layout. * Describe the use of the CSS3 feature for text columns.   Describe the use of absolute, relative, and fixed positioning.  **Course Outcome Alignment**  Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | **Homework: Chapters 4 – 6**  **Due 9/10/2023**  **Lab: Chapters 4 – 6 Labs**  **Due 9/10/2023**  **Written Tests: Chapters 4 – 6**  **Due 9/10/2023** |
| Day08 09/07/2023 | **Chapters 1 – 6 Hands-On Test #2**  **Course Outcome Alignment**  Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | **Homework: Chapters 4 – 6**  **Due 9/10/2023**  **Lab: Chapters 4 – 6 Labs**  **Due 9/10/2023**  **Written Tests: Chapters 4 – 6**  **Due 9/10/2023** |
| Day09 09/08/2023 | **Lecture & Lab Chapter 7**  **General Objective: Code lists, links, and navigation menus**  **Specific Objectives:**   * Name and describe the three types of HTML lists. * Describe the use of <a> elements for linking to another web page, opening another web page in a new browser window, linking to placeholders on the same page, linking to media files, starting an email message, calling a phone number, or starting a Skype session. * Describe the use of unordered lists and <a> elements for the creation of navigation lists and navigation menus, including 2- and 3-tier menus. * Describe the use of these pseudo-classes for formatting links: :link, :visited, :hover, and :focus. * Describe the use of these CSS properties for formatting links: text-decoration and border.   **Course Outcome Alignment**   * Plan, analyze, design, implement, and support web sites * Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tool | **Homework: Chapters 4 – 6**  **Due 9/10/2023**  **Lab: Chapters 4 – 6 Labs**  **Due 9/10/2023**  **Written Tests: Chapters 4 – 6**  **Due 9/10/2023**  **Homework: Chapters 7 – 10**  **Due 9/17/2023**  **Lab: Chapters 7 – 10 Labs**  **Due 9/17/2023**  **Written Tests: Chapters 7 – 10**  **Due 9/17/2023** |
| Day10 09/11/2023 | **Lecture & Lab Chapter 8**  **General Objective: Build Responsive Websites**  **Specific Objectives:**   * Describe the three components of a Responsive Web Design. * Describe three basic ways that you can test a responsive design. * Explain how fluid layouts compare to fixed layouts. * Explain why you should use relative font sizes with a responsive design. * Describe the use of the meta element for setting the viewport on mobile devices. * Describe the basic syntax of a media query. * Describe two standard approaches for developing the media queries for a responsive design. * Explain why you might want to use a SlickNav menu when developing a responsive design.   **Course Outcome Alignment**   * Plan, analyze, design, implement, and support web sites * Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tool * Develop mobile responsive websites | **Homework: Chapters 7 – 10**  **Due 9/17/2023**  **Lab: Chapters 7 – 10 Labs**  **Due 9/17/2023**  **Written Tests: Chapters 7 – 10**  **Due 9/17/2023** |
| Day11 09/12/2023 | **Lab Chapter 9**  **General Objective: How to use Flexible Box (FlexBox) Layout for page layout and RWD**  **Specific Objectives:**   * Describe Describe/demonstrate how to align flex items along the main axis * Describe/demonstrate how to align flex items along the cross axis * Describe/demonstrate how to wrap and align wrapped flex items * Describe/demonstrate how to allocate space for flex items * Describe/demonstrate how to change the order of flex items   **Course Outcome Alignment**   * Plan, analyze, design, implement, and support web sites * Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tool * Develop mobile responsive websites | **Homework: Chapters 7 – 10**  **Due 9/17/2023**  **Lab: Chapters 7 – 10 Labs**  **Due 9/17/2023**  **Written Tests: Chapters 7 – 10**  **Due 9/17/2023** |
| Day12 09/13/2023 | **Lab Chapter 10**  **General Objective: How to use Grid Layout for page layout and RWD**  **Specific Objectives:**   * Describe/demonstrate how to define a basic grid * Describe/demonstrate how to use numbered lines, named lines, and template areas * Define/describe how to use the 12-column grid concept   **Course Outcome Alignment**   * Plan, analyze, design, implement, and support web sites * Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tool | **Homework: Chapters 7 – 10**  **Due 9/17/2023**  **Lab: Chapters 7 – 10 Labs**  **Due 9/17/2023**  **Written Tests: Chapters 7 – 10**  **Due 9/17/2023** |
| Day13 09/14/2023 | * **Lab Day All Period** | **Homework: Chapters 7 – 10**  **Due 9/17/2023**  **Lab: Chapters 7 – 10 Labs**  **Due 9/17/2023**  **Written Tests: Chapters 7 – 10**  **Due 9/17/2023** |
| Day14 09/15/2023 | * **Hands-On Test #2. Chapters 7 – 10.** | **Homework: Chapters 7 – 10**  **Due 9/17/2023**  **Lab: Chapters 7 – 10 Labs**  **Due 9/17/2023**  **Written Tests: Chapters 7 – 10**  **Due 9/17/2023** |
| Day15 09/18/2023 | **Lecture & Lab Chapter 11**  **General Objective: How to work with images and icons**  **Specific Objectives:**   * Describe the different types of image formats * Describe/demonstrate how to include an image on a web page * Describe/demonstrate how to resize, align, and float images on a web page * Describe/demonstrate how to work with the HTML5 <figure> and <figcaption> elements * Describe/demonstrate how to work with an image rollover * Describe/demonstrate how to work with an image map   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Develop mobile responsive websites * Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tools | **Homework: Chapters 11 – 15**  **Due 9/24/2023**  **Lab: Chapters 11 – 15 Labs**  **Due 9/24/2023**  **Written Tests: Chapters 11 – 15**  **Due 9/24/2023** |
| Day16 09/19/2023 | **Lecture & Lab Chapter 12**  **General Objective: How to work with tables**  **Specific Objectives:**   * Describe the use of an HTML form for initiating client-side processing or submitting data to a web server. * Describe the get and post methods that can be used to submit a form. * Describe the use of any of the form controls. * Describe the use of tab order and access keys. * Describe the use of these HTML5 attributes: autocomplete, required, and pattern. * Describe the use of regular expressions. * Describe the use of a datalist. * Describe the use of a form that provides a search function for a website.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Develop mobile responsive websites   Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tools | **Homework: Chapters 11 – 15**  **Due 9/24/2023**  **Lab: Chapters 11 – 15 Labs**  **Due 9/24/2023**  **Written Tests: Chapters 11 – 15**  **Due 9/24/2023** |
| Day17 09/20/2023 | **Lecture & Lab Chapter 13**  **General Objective: How to work with forms**  **Specific Objectives:**   * Describe the use of an HTML form for initiating client-side processing or submitting data to a web server. * Describe the get and post methods that can be used to submit a form. * Describe the use of any of the form controls. * Describe the use of tab order and access keys. * Describe the use of these HTML5 attributes: autocomplete, required, and pattern. * Describe the use of regular expressions. * Describe the use of a datalist. * Describe the use of a form that provides a search function for a website.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Develop mobile responsive websites * Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tools | **Homework: Chapters 11 – 15**  **Due 9/24/2023**  **Lab: Chapters 11 – 15 Labs**  **Due 9/24/2023**  **Written Tests: Chapters 11 – 15**  **Due 9/24/2023** |
| Day18 09/21/2023 | **Lecture & Lab Chapters 14 – 15**  **General Objective: Audio/Video and How to Work with fonts and printing**  **Specific Objectives:**   * Add audio files to an HTML/CSS website. * Add video files to an HTML/CSS website * In general terms, describe how the CSS3 @font-face selector works. * In general terms, describe the use of Google Web Fonts and Adobe Typekit fonts. * In general terms, describe the way that you format a web page for printing. * Describe three ways that you can provide the styles for printing a web page. * Describe the use of these properties for printing a page: display, page-break-before, page-break-after, orphans, and widows. * Explain why in (inches) is often used as the unit of measurement for printed pages.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Develop mobile responsive websites   Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tools | **Homework: Chapters 11 – 15**  **Due 9/24/2023**  **Lab: Chapters 11 – 15 Labs**  **Due 9/24/2023**  **Written Tests: Chapters 11 – 15**  **Due 9/24/2023** |
| Day19 09/22/2023 | **Lab Day All Period** | **Homework: Chapters 11 – 15**  **Due 9/24/2023**  **Lab: Chapters 11 – 15 Labs**  **Due 9/24/2023**  **Written Tests: Chapters 11 – 15**  **Due 9/24/2023** |
| Day20 09/25/2023 | **Hands-On Test #4. Chapters 11 – 15.** |  |
| Day21 09/26/2023 | **Lecture & Lab Chapter 16**  **General Objective:**  **Work with transitions, transforms, animations, and filters**  **Specific Objectives:**   * Explain how a transition effects the way that a change is applied to an element. * Explain what a timing function is and how it affects a transition or animation. * Explain how the rotate, scale, skew, and translate transforms along with the transform origin effect an element. * Describe the function of the @keyframes selector rule for an animation and two ways it can be coded. * Describe what you can do with filters and when they’re applied.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries * Develop mobile responsive websites   Format text, implement page layout, create links, images, lists, tables, and incorporate video, audio, and social media tools | **Homework: Chapters 11 – 15**  **Due 10/1/2023**  **Lab: Chapters 11 – 15 Labs**  **Due 10/1/2023**  **Written Tests: Chapters 11 – 15**  **Due 10/1/2023** |
| Day22 09/27/2023 | **Discuss Bootstrap 4, Chapter 17 – 20 Material** | **Midterm**  **Due 10/1/2023** |

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| --- | --- | --- | --- | --- | --- |
| Day23 09/28/2023 | | **Discuss Bootstrap 4, Chapter 17 – 20 Material** | | **Midterm**  **Due 10/1/2023** | |
| Day24 09/29/2023 | | **Begin work on Mid-Term** | | **Midterm**  **Due 10/1/2023** | |
| Day25 10/02/2023 | | **Begin work on Mid-Term** | | **Midterm**  **Due 10/1/2023** | |
| Day26 10/03/2023 | | **Lecture & Lab Chapters 1 – 2**  **General Objective: Getting Started with JavaScript**  **Specific Objectives:**   * Describe two ways to include JavaScript in the head of an HTML document. * Describe how JavaScript can be included in the body of an HTML document. * Describe how case-sensitivity, semicolons, and whitespace relate to the syntax for a JavaScript statement. * List the primary rules for creating a JavaScript identifier. * Describe the use of JavaScript comments, including “commenting out” portions of JavaScript code. * Describe the three primitive data types used in JavaScript: numeric, string, and Boolean. * Describe the use of variable declarations and assignment statements with numeric, string, and Boolean data. * Describe the use of the arithmetic operators and the rules for evaluating an arithmetic expression, including order of precedence and the use of parentheses. * Describe the use of the + operator and the \n escape sequence when working with strings. * Describe the syntax for referring to a method or property of an object. * Describe the use of the alert(), prompt(), parseInt(), parseFloat(), write(), and writeln() methods.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day27 10/04/2023 | | **Lecture & Lab Chapter 3**  **General Objective: Essential JavaScript Statements**  **Specific Objectives:**   * Describe the rules for evaluating a conditional expression that consists of relational operators, including the use of the isNaN() method. * Describe the order of precedence for the logical NOT, AND, and OR operators as well as how the use of parentheses can affect this order. * Describe the flow of control of an if statement that has both else if and else clauses. * Describe the two ways that you can code a conditional expression that tests whether a Boolean variable is true. * Describe the flow of control for while, do-while, and for loops. * Describe the use of a JavaScript array, including the use of its index and length property. * Describe the use of a for loop with an array.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries   **No class – President’s Day** | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day28 10/05/2023 | | **Lecture & Lab Chapter 4**  **General Objective:**  **Work with JavaScript objects, functions, and events**  **Specific Objectives:**   * Distinguish between these objects: window, document, Textbox, Number, Date, and String. * Describe the way Number and String objects are created. * Describe these methods of the window object: parseInt() and parseFloat(). * Describe these methods of the document object: getElementById(), write(), and writeln(). * Describe the focus() method and the value and disabled properties of a Textbox object. * Describe the toFixed() method of a Number object. * Describe the way Date objects are created. * Describe these methods of a Date object: toDateString(), getFullYear(), getDate(), and getMonth(). * Describe the length property of a string and these methods of a string: indexOf(), substr(), substring(), toLowerCase(), and toUpperCase(). * Describe the creation and use of both function expressions and function declarations. * Distinguish between local and global variables. * Describe the use of strict mode in JavaScript. * Describe the creation and attachment of event handlers, including an event handler for the load event of the window object.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day29 10/06/2023 | | Chapters 1 – 4 Lab | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day30 10/09/2023 | | Chapters 1 – 4 Lab | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day31 10/10/2023 | | Chapters 1 – 4 Lab | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day32 10/11/2023 | | **Hands-On Test #1. JS Chapters 1 – 4.** | | **Homework: Chapters 1 – 4**  **Due 10/15/2023**  **Lab: Chapters 1 – 4 Labs**  **Due 10/15/2023**  **Written Tests: Chapters 1 – 4**  **Due 10/15/2023** | |
| Day3310/12/2023 | | **Lecture & Lab Chapter 5**  **General Objective: Test and Debug JavaScript Applications**  **Specific Objectives:**   * Distinguish between the goals of testing and debugging. * Distinguish between syntax, runtime, and logic errors. * In general terms, describe the way you create a test plan. * Describe the type of debugging problem that can occur when you use floating-point numbers in arithmetic expressions, and describe one way to fix this problem. * Describe the type of debugging problem that can occur if you don’t use script mode so JavaScript treats undeclared variables as global variables. * Explain how top-down coding and testing can simplify debugging.   Describe the procedure for tracing the execution of an application with console.log statements.  **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 5 – 7**  **Due 10/22/2023**  **Lab: Chapters 5 – 7 Labs**  **Due 10/22/2023**  **Written Tests: Chapters 5 – 7**  **Due 10/22/2023** | |
| Day34 10/13/2023 | | **Lecture & Lab Chapter 6**  **General Objective: Script the DOM**  **Specific Objectives:**   * Describe the use of the Document Object Model in JavaScript applications. * Describe these properties of the Node interface for the DOM: nodeValue, parentNode, childNodes, firstChild, lastChild, and nextElementSibling. * Describe these methods of the Document and Element interfaces for the DOM: getElementsByTagName(), getElementsByName(), and getElementsByClassName(). * Describe these methods of the Element interface for the DOM: hasAttribute(), getAttribute(), setAttribute(), and removeAttribute(). * Explain how the DOM HTML specification can simplify coding when compared to the DOM Core specification. * Describe the use of a form, submit button, and reset button. * Describe the use of Textbox, Textarea, Select, Radio, and Checkbox objects. * Describe these methods for working with forms and controls: submit(), reset(), focus(), blur(). * Describe these events for working with controls: onfocus, onblur, onclick, ondblclick, onchange, onselect. * Describe the process of adding nodes to the DOM with the innerHTML() method.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 5 – 7**  **Due 10/22/2023**  **Lab: Chapters 5 – 7 Labs**  **Due 10/22/2023**  **Written Tests: Chapters 5 – 7**  **Due 10/22/2023** | |
| Day35 10/16/2023 | | **Lecture & Lab Chapter 7**  **General Objective: Working with Links, Images, and Timers**  **Specific Objectives:**   * Use JavaScript to cancel the default action of an event. * Preload the images for an application when the images aren’t automatically loaded with the web page. * Use one-time and interval timers in your JavaScript applications. * Describe the need for a cross-browser compatible function or method that prevents the default action of an event. * Describe the use of images and preloaded images in applications like image swaps and slide shows. * Describe these timer methods: setTimeout(), clearTimeout(), setInterval(), and clearInterval().   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 5 – 7**  **Due 10/22/2023**  **Lab: Chapters 5 – 7 Labs**  **Due 10/22/2023**  **Written Tests: Chapters 5 – 7**  **Due 10/22/2023** | |
| Day36 10/17/2023 | | Chapters 5 – 7 Lab | | **Homework: Chapters 5 – 7**  **Due 10/22/2023**  **Lab: Chapters 5 – 7 Labs**  **Due 10/22/2023**  **Written Tests: Chapters 5 – 7**  **Due 10/22/2023** | |
| Day37 10/18/2023 | | Chapters 5 – 7 Lab | | **Homework: Chapters 5 – 7**  **Due 10/22/2023**  **Lab: Chapters 5 – 7 Labs**  **Due 10/22/2023**  **Written Tests: Chapters 5 – 7**  **Due 10/22/2023** | |
| Day38 10/19/2023 | | **Hands-On Test #2. JS Chapters 5 – 7.** | | **Homework: Chapters 5 – 7**  **Due 10/22/2023**  **Lab: Chapters 5 – 7 Labs**  **Due 10/22/2023**  **Written Tests: Chapters 5 – 7**  **Due 10/22/2023** | |
| Day39 10/20/2023 | | **Lecture & Lab Chapter 8**  **General Objective: Intro to jQuery**  **Lecture & Lab Chapter 9:**  **General Objective: jQuery Effects and Animations**  **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 8 – 11**  **Due 10/29/2023**  **Lab: Chapters 8 – 11 Labs**  **Due 10/29/2023**  **Written Tests: Chapters 8 – 11**  **Due 10/29/2023** | |
| Day40 10/23/2023 | | **Lecture & Lab Chapter 10:**  ***General Objective:* jQuery Forms/Form Validation**  **Lecture & Lab Chapter 11:**  ***General Objective:* jQuery Plugins and Widgets**  **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 8 – 11** Due 10/29/2023 **Lab: Chapters 8 – 11 Labs**  **Due 10/29/2023**  **Written Tests: Chapters 8 – 11**  **Due 10/29/2023** | |
| Day41 10/24/2023 Day42 10/25/2023 Day43 10/26/2023 Day44 10/27/2023 | | **Chapters 8 – 11 Lab.**  **Chapters 8 – 11 Lab.**  **Hands-On Test #3. JS Chapters 8 – 11.**  **Lecture Chapter 12**  **General Objective: Numbers, Strings, & Dates**  **Specific Objectives:**   * Use the properties and methods of Number, String, and Date objects in applications. * Use the random() method of the Math object to generate a random integer within a specific range. * Describe these special numerical values: Infinity, -Infinity, NaN, Number.MAX\_VALUE, and Number.MIN\_VALUE. * Describe these methods of a Number object: toFixed() and toString(). * Describe the PI property and these methods of the Math object: abs(), round(), ceil(), floor(), pow(), sqrt(), max(), min(), and random(). * Describe the length property and these methods of a String object: charAt(), concat(), indexOf(), substr(), substring(), toLowerCase(), and toUpperCase(). * Describe how to create a Date object for the current date and time or for a specified date and time. * Describe these methods of the Date object: toString(), toDateString(), toTimeString(), getFullYear(), getMonth(), getDate(), setFullYear(), setMonth(), and setDate(). * Describe the coding that’s required to add or subtract dates.   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 8 – 11**  **Due 10/29/2023**  **Lab: Chapters 8 – 11 Labs**  **Due 10/29/2023**  **Written Tests: Chapters 8 – 11**  **Due 10/29/2023**  **Homework: Chapters 8 – 11** Due 10/29/2023 **Lab: Chapters 8 – 11 Labs**  **Due 10/29/2023**  **Written Tests: Chapters 8 – 11**  **Due 10/29/2023**  **Homework: Chapters 8 – 11**  **Due 10/29/2023**  **Lab: Chapters 8 – 11 Labs**  **Due 10/29/2023**  **Written Tests: Chapters 8 – 11**  **Due 10/29/2023**  **Homework: Chapters 8 – 11**  **Due 10/29/2023**  **Lab: Chapters 8 – 11 Labs**  **Due 10/29/2023**  **Written Tests: Chapters 8 – 11**  **Due 10/29/2023**  **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 | |
| Day45 10/30/2023 | | **Lecture Chapter 13 & 14**  **General Objective: Control Structures, Exceptions, and Regular Expressions**  **Specific Objectives:**   * Use the identity operators in your control structures. * Use break and continue statements in your while, do-while, and for loops. * Use switch statements, including those that use fall through and default cases. * Use the conditional operator for simple logic requirements. * Use the AND and OR operators for selections. * Use try-catch statements to catch errors. * Create and throw Error objects. * Create regular expressions and use them to match patterns in strings. * Describe type coercion and distinguish between the equality and identity operators. * Describe the use of a switch statement. * Describe the use of break and continue statements in loops. * Describe the use of a conditional operator as a replacement for an if statement. * Explain how the short-circuit evaluations of the AND and OR operators can be used in selections. * Describe the use of the try, catch, and finally blocks in a try-catch statement. * Describe how to work with cookies and web storage   **Course Outcome Alignment**   * Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 | |
| Day46 10/31/2023 | | **Lecture & Lab Chapter 15 & 16**  **General Objective: Arrays**  **Specific Objectives:**   * Use arrays in applications. * Use associative arrays and arrays of arrays in applications. * Describe the creation and use of a JavaScript array. * Describe the use of indexes and the length property for working with an array. * Distinguish between the use of a for statement and a for-in statement for working with an array. * Describe these methods of an Array object: push(), pop(), unshift(), shift(), splice(), slice(), concat(), join(), isArray(), indexOf(), and lastIndexOf(). * Describe the use of functions as the parameters for these methods of an Array object: sort(), map(), and filter(). * Describe the split() method of the String object. * Distinguish between an array, an associative array, and an array of arrays.   **Course Outcome Alignment**  Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 | |
| Day47 11/01/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 14** Due 11/12/2023 |
| Day48 11/02/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 |
| Day49 11/03/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 |
| Day50 11/06/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 136** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 |
| Day51 11/07/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 |
| Day52 11/08/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 |
| Day53 11/09/2023 | | Chapters 12 – 13, 15 Lab | | **Homework: Chapters 12 – 13** Due 11/12/2023 **Lab: Chapters 12 – 13 Labs** Due 11/12/2023 **Written Tests: Chapters 12 – 13** Due 11/12/2023 |
| Day5411/13/2023 | | **Hands-On Test #6. JS Chapters 12 – 13, 15.** | |  |
| Day5511/14/2023 | | **Lecture & Lab Chapter 14**  **General Objective: Browser Objects, Cookies, and Web Storage**  **Specific Objectives:**   * Script browser objects * Use the browser location object * Use the browser history object * Use web storage * Use local and session storage * Use Chrome with cookies and web storage * Work with cookies in a website * Work with web storage in a website   **Course Outcome Alignment**  Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 14 – 16**  **11/19/2023**  **Lab: Chapters 14 – 16 Labs**  **Due 11/19/2023**  **Written Tests: Chapters 14 – 16**  **Due 11/19/2023** |
| Day5611/15/2023 | | **Lecture & Lab Chapter 16**  **General Objective: Working with Objects**  **Specific Objectives:**   * Create object literals * Extend or modify an existing JavaScript object * Work with accessor properties * Demonstrate how to use a class to define an object type * Identify when to use inheritance vs. object composition * Demonstrate how to work with object prototypes * Demonstrate how to work with legacy code when creating objects * Demonstrate how to use a symbol as a computed property or method name * Demonstrate how to work with iterators and generator functions * Demonstrate how to create cascading methods * Demonstrate how to destructure an object * Work with static methods of the Object type   **Course Outcome Alignment**  Hand code and utilize HTML, CSS, JavaScript, and modern JavaScript libraries | | **Homework: Chapters 14 – 16**  **11/19/2023**  **Lab: Chapters 14 – 16 Labs**  **Due 11/19/2023**  **Written Tests: Chapters 14 – 16**  **Due 11/19/2023** |
| Day5711/16/2023 | | Chapters 14 & 16 Lab | | **Homework: Chapters 14 – 16**  **11/19/2023**  **Lab: Chapters 14 – 16 Labs**  **Due 11/19/2023**  **Written Tests: Chapters 14 – 16**  **Due 11/19/2023** |
| Day5811/17/2023 | | Chapters 14 & 16 Lab | | **Homework: Chapters 14 – 16**  **11/19/2023**  **Lab: Chapters 14 – 16 Labs**  **Due 11/19/2023**  **Written Tests: Chapters 14 – 16**  **Due 11/19/2023** |
| Day59 11/20/2023 | | Chapters 14 & 16 Lab | | **Homework: Chapters 14 – 16**  **11/19/2023**  **Lab: Chapters 14 – 16 Labs**  **Due 11/19/2023**  **Written Tests: Chapters 14 – 16**  **Due 11/19/2023** |
| Day6011/21/2023 | | Chapters 17 – 19  **Advanced JavaScript Concepts** | | **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19**  **Due 12/3/2023** |
| Day61 11/22/2023 | | Chapters 17 – 19  **Advanced JavaScript Concepts** | | **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19** Due 12/3/2023 |
| Day62 11/27/2023 | | Chapters 17 – 19  **Advanced JavaScript Concepts** | | **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19**  **Due 12/3/2023** |
| Day63 11/28/2023 | | Chapters 17 – 19  **Advanced JavaScript Concepts** | | **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19**  **Due 12/3/2023** |
| Day64 11/29/2023 | | Chapters 17 – 19  **Advanced JavaScript Concepts** | | **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19**  **Due 12/3/2023** |
| Day65 11/30/2023 | | **Mid-Term Part II** | | **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19**  **Due 12/3/2023** |
| Day66 12/01/2023 | | **Mid-Term Part II** | | **Mid-term 2: Due 12/17/23**  **Homework: Chapters 17 – 19**  **12/3/2023**  **Lab: Chapters 17 – 19 Labs**  **Due 12/3/2023**  **Written Tests: Chapters 17 – 19**  **Due 12/3/2023** |
| Day67 12/04/2023 | | **Mid-Term Part II** | | **Mid-term 2: Due 12/17/23** |
| Day68 12/05/2023 | | **Mid-Term Part II** | | **Mid-term 2: Due 12/17/23** |
| Day69 12/06/2023 | | **Mid-Term Part II** | | **Mid-term 2: Due 12/17/23** |
| Day7012/07/2023Day7112/08/2023 | | **Mid-Term Part II**  **Mid-Term Part II** | | **Mid-term 2: Due 12/17/2023**  **Mid-term 2: Due 12/17/2023** |
| Day72 12/11/2023 | | **Intro to ReactJS** | | **Mid-term 2: Due 12/17/2023** |
| Day73 12/12/2023 | | **Intro to ReactJS** | | **Mid-term 2: Due 12/17/2023** |
| Day74 12/13/2023 | | **Intro to ReactJS** | | **Mid-term 2: Due 12/17/2023** |
| Day75 12/14/2023 | | **Intro to ReactJS** | | **Mid-term 2: Due 12/17/2023** |
| Day76 12/15/2023 | | **Update electronic portfolio** | | **E-Portfolio: Due 12/20/23** |
| Day77 12/18/2023 | | **Update electronic portfolio** | | **E-Portfolio: Due 12/20/23** |
| Day78 12/19/2023 | | **Update electronic portfolio** | | **E-Portfolio: Due 12/20/23** |
| Day79 12/20/2023 | | **Update electronic portfolio** | | **E-Portfolio: Due 12/20/23** |
| Day80 12/21/2023 | | **Update electronic portfolio** | | **E-Portfolio: Due 12/20/23** |