

MONTGOMERY COLLEGE

Media Arts & Technologies Department – Rockville Campus
TECH276 – JavaScript Fundamentals



Instructor	John Coliton	Spring, 2019 – CRN 32686 HU 311 – Thurs. 6:30 – 9:10 p.m.
Office:	HU 251 (240-567-5139)	
Office Hours:	Monday: 1:00 p.m. – 2:00 p.m. Tuesday: 2:00 p.m. – 3:00 p.m. Wednesday: 9:30 a.m. - 10:30 a.m. Thursday: 5:00 p.m. – 6:00 p.m.	
Web:	http://www.montgomerycollege.edu/~jcoliton/	
Email:	john.coliton@montgomerycollege.edu	

Course Description

A study of JavaScript language used to create dynamic and interactive web content. In this introductory course, students will learn the fundamentals of working with the behavior layer of web development using JavaScript. Students will learn scripting basics. The principles of unobtrusive and cross browser scripting, how to navigate and manipulate the Document Object Model (DOM), and how to use JavaScript libraries to improve web development. **PREREQUISITE:** **TECH272/CMAP272** or consent of department. Three hours each week. Formerly CA 276. 3 Credit hours 3 Bill Hours

Course Objectives

Upon completion of this course a student will be able to:

- write and use fundamental programming constructs using JavaScript (such as the creation and use of variables, conditional statements, loops, and functions);
- write JavaScript code that interacts with the behavior layer of web pages;
- navigate and manipulate DOM (document object model) elements, handle events and animate using JavaScript;
- use JavaScript to enhance a user's experience and the processing speed of web pages.

Course Materials

Book

The book for this course is “*JavaScript by Example*” by Ellie Quigley, Copyright 2011 Pearson Education Inc. 978-0-13-705489-3, and is required for this class.

Software & Storage

Although not required, you may also choose to purchase Adobe Dreamweaver to edit your files. The software is provided in the classroom and lab, and you may buy a copy at a student rate from the bookstore or download the 30 day trial version from Adobe if you wish to work with your own computer. An alternative (and free) text editor is Brackets and is available at <http://www.brackets.io/>. You will also need a USB drive to save your work, 2 gigabytes should be sufficient, and a second to back-up your work.

Important Dates

The last day to drop the class with a refund is: January 30, 2019

The last day to change to audit is: February 13, 2019

The last day to drop a class without a grade is: February 13, 2019

The last day to drop a class with a grade of "W" is: April 17, 2019

Syllabus Supplement

Additional policies are at <http://mc.coliton.com/SyllabusSupplementSpring2019.pdf> and should be considered part of this syllabus.

Grading Policy and Procedure

Grading is based on homework assignments, a midterm, a final project, a class presentation, and class participation. Homework is to be submitted via Blackboard prior to the **START** of the class period when it is due. Late work will be accepted, but at a reduction of possible points. The midterm will be drawn from the reading and lecture material and is open book. Make-up exams are not typically granted without a bona fide reason for missing the exam (court date or military service are examples). The final project will include developing a JavaScript based game, more information regarding the project will be provided in a separate handout. The class presentation will be a review of a web site that you find particularly interesting or informative. Class participation will be based on attendance, the quality of interaction and involvement during discussions, and interaction with other students. This class may be audited (taken without the expectation of a grade) with my permission and the proper form submitted to the records office. Someone who audits the class is still expected to participate in class and complete all projects.

The grading is allocated as follows:

Final Project (in four parts)	200
Coding Assignments (10 at 15-25 pts. each)	200
Midterm.....	100
Class presentation	25
Class participation.....	<u>25</u>
Total Points:.....	550

The following distribution of points will be used to determine final grades:

A	=	495	↔	550	(90 - 100%)
B	=	440	↔	494	(80 - 90%)
C	=	385	↔	439	(70 - 80%)
D	=	330	↔	384	(60 - 70%)
F	=	0	↔	329	(0 - 60%)

A course calendar is available online at: <http://mc.coliton.com/TECH276/images/calendar.pdf>

Course Schedule and Assignments

Date	Topic	Assignment
Jan-24	Introduction	<p>Course Introduction and JavaScript Fundamentals</p> <p>Homework Assignment</p> <p>Gather the required course materials and review course documents & web sites</p> <p>Read <i>JavaScript By Example</i> – chapters 1 – 3, 5 for next class</p>
Jan-31	Data & Debug	<p>Data Types, Variables and Debugging Tools</p> <p>Homework Assignment</p> <p>Read <i>JavaScript By Example</i> – chapters 7 & 13 for next class</p> <p>Coding Assignment #1: “Basic Math” – Due Feb-07</p>
Feb-07	Functions	<p>Creating and Using Functions, Events and Event Handlers</p> <p>Homework Assignment</p> <p>Read <i>JavaScript By Example</i> – chapter 6 for next class</p> <p>Coding Assignment #2: “Temperature Conversion” – Due Feb-14</p>
Feb-14	Flow Control	<p>Using “For” and “While” Loops and Decision Structures</p> <p>Homework Assignment</p> <p>Read <i>JavaScript By Example</i> – chapters 8 & 9 for next class</p> <p>Coding Assignment #3: “Better Secret Number” – Due Feb-21</p>
Feb-21	Data Structures	<p>Using Arrays and User-Defined Objects</p> <p>Homework Assignment</p> <p>Read <i>JavaScript By Example</i> – chapters 10 & 15 for next class</p> <p>Coding Assignment #4: “Object Array” – Due Feb-28</p> <p>Final Project Proposal – Due Mar-07</p>
Feb-28	Midterm Exam	
Mar-07	DOM/BOM	<p>Document Object Model and Browser Object Model</p> <p>Homework Assignment</p> <p>Read JQuery tutorial located at http://www.w3schools.com/jquery/ for next class</p> <p>Coding Assignment #5: “Mouse Events” – Due Mar-21</p>
Mar-14	Spring Break	
Mar-21	JQuery	<p>How to Install and Use the JQuery Library</p> <p>Homework Assignment</p> <p>Read <i>JavaScript By Example</i> – chapter 12 for next class</p> <p>Coding Assignment #6: “Animation” – Mar-28</p> <p>Final Project flowchart – Due Apr-11</p>
Mar-28	Images & Video	<p>Working with Images and Videos</p> <p>Homework Assignment</p> <p>Read <i>JavaScript By Example</i> – chapters 11 & 16 for next class</p> <p>Coding Assignment #7: “Show and Hide Images” – Due Apr-04</p>
Apr-04	Forms & Cookies	<p>Validating Forms and Setting/Using Cookies</p> <p>Homework Assignment</p> <p>Coding Assignment #8: “Create a User Registration Form” – Due Apr-11</p>
Apr-11	DHTML	<p>Create a Dynamic HTML Menu System</p> <p>Homework Assignment</p> <p>Coding Assignment #9: “Create a Page with Cookies” – Due Apr-18</p> <p>Final Project and Presentation – Due May-09 at 7:15 p.m.</p>
Apr-18	Apps & IDEs	<p>Web Based Applications and alternative IDEs and Editors</p> <p>Homework Assignment</p> <p>Coding Assignment #10: “Create a Menu System” – Due Apr-25</p>
Apr-25	Bootstrap	Bootstrap
May-02	Final Review	Final Review
May-09	Presentations	7:15 p.m. – 9:15 p.m.

Project Ownership Rights

The Media Arts & Technologies Department will recognize ownership of any work produced as a class project, with the right of the department and Montgomery College to use the work for public display or for any promotional purposes that support the Montgomery College mission.

Basic Needs Statement

“Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live, is urged to contact the *Dean of Students Affairs* on your campus. Furthermore, please notify the professor if you are comfortable in doing so. This will enable the professor to provide any resources that they may possess. We know this can affect performance in the course and Montgomery College is committed to your success.”

The Deans of Student Affairs, by Campus

Germantown: Dr. Jamin Bartolomeo, jamin.bartolomeo@montgomerycollege.edu
Rockville: Dr. Tonya R. Mason, tonya.mason@montgomerycollege.edu
Takoma Park/SS: Dr. Clemmie Solomon, clemmie.solomon@montgomerycollege.edu

Student Health and Wellness/ Fuel for Success Website

This website offers information about resources for food on our campuses and in the community and has links for community resources. The site offers the schedule for the mobile markets, locations of the food pantries as well as a link for those who wish to contribute their time or money to support our students: <http://cms.montgomerycollege.edu/student-health-and-wellness/fuel-for-success/>

Campus Food Pantries

Each of the main campuses has a pantry stocked with snacks and food. Students are welcome to come pick up a snack to carry you through your next class, and to take a few items home.

Campus	Pantry Location	Days & Hours of Operation
Germantown	<i>High Tech (HT) Food Pantry</i> In the hallway, near HT300	9:00 a.m. - 5:00 p.m.
Rockville	<i>Women's' and Gender Studies Program Food Pantry</i> Hallway outside of MT212 --- <i>Biology Department Food Pantry</i> Science Center, 2 nd floor hallway	Monday-Friday 9:00 a.m. - 5:00 p.m. --- Monday-Friday 9:00 a.m. - 5:00 p.m.
Takoma Park/Silver Spring	<i>Commons Food Pantry</i> CM 110 --- <i>Institute for Justice, Race and Civic Engagement Food Pantry</i> Pavilion 4, #202 Vincent.intondi@montgomerycollege.edu	Monday - Thursday 8:00 a.m. - 7:00 p.m. Saturdays 9:00 a.m. - 1:00 p.m. --- Monday and Wed: 12:30-4 Tuesday and Thursday: 2-4

Mobile Markets

The College has a partnership with the Capital Area Food Bank. They distribute a variety of foods at Mobile Markets, at each of the three main campuses. Food is available on a first-come basis for MC students, faculty/staff, and the community. The markets are open to the entire community. No proof of eligibility is required. For information on volunteering at the Mobile Markets, reach to Student Affairs, [Carmen Poston-Travis](#) 240-567-5253 or [Benita Rashaw](#) 240-567-4389. *Please consider volunteering at the Mobile Markets!*

Campus	Mobile Market Location	Time	Dates
Germantown	Outside SA (In inclement weather - High Tech Building (HT), Second Floor Upper Lobby)	10:00 a.m. - 12:00 p.m.	February 13, 2019 March 20, 2019 April 10, 2019 May 8, 2019
<u>Rockville</u>	Outside of the North Garage (NG)	10:00 a.m. - 12:00 p.m.	February 20, 2019 March 27, 2019 April 17, 2019 May 15, 2019
Takoma Park/Silver Spring	Outdoor space between the Student Center and North Pavilion (In inclement weather - ST atrium)	2:00 p.m. - 4:00 p.m.	February 6, 2019 March 6, 2019 April 3, 2019 May 1, 2019

IMPORTANT ADVISING INFORMATION

To All Degree and Certificate Seeking Students in:

- Computer Gaming and Simulation
- Digital Animation
- Digital Media and Web Technology
- Graphic Design
- Illustration
- Photography
- Television and Radio

You must make an appointment to meet with an advisor in your program during this semester to create or review your academic plan.

If you are in your last semester, please meet with your advisor before *February 15* to complete a graduation evaluation and application. You must declare or update your major by *February 1* to apply for Spring graduation by February 15.

Advisors:

Computer Gaming and Simulation

Deborah Solomon, 240.567.5136, Deborah.Solomon@montgomerycollege.edu

Digital Animation

Jeff Golden, 240.567.7760, Jeff.Golden@montgomerycollege.edu

Digital Media and Web Technology

Gail Youth, 240-567-5340, Gail.Youth@montgomerycollege.edu

Graphic Design

Patricia Johannsen, 240.567.7517, Patricia.Johannsen@montgomerycollege.edu

Graphic Design and Illustration

Martha Vaughan, 240.567.7521, Martha.Vaughan@montgomerycollege.edu

Photography

Ronald Beverly, 240.567.7519, Ronald.Beverly@montgomerycollege.edu

Radio

Tiffany Copeland, 240.567.5307, Tiffany.Copeland@montgomerycollege.edu

Television and Digital Media Production

Joanne Carl, 240.567.5304, Joanne.Carl@montgomerycollege.edu