

JavaScript Advanced – 443 021 2022

Instructor: Adnan Ahmed Email: aeahmed@ucalgary.ca

Delivery Method: Online synchronous

Classroom Location: N/A

Days/Time: Mon and Wed – 6 pm to 9 pm **Course Duration:** July 5, 2022 – Aug 4, 2022

Required Resources: No books required. Online reading resources will be shared in class.

Text editing software such as notepad++, Visual Studio code.

Course Description

This course will begin with a brief review of JavaScript basics and jump right into the object-oriented nature of the language, it will then continue with an exploration of JavaScript design patterns and end with an brief look at using JavaScript framework and libraries.

Course Learning Outcomes

By completion of this course, successful students will be able to:

- Integrate JavaScript Framework Library content
- Construct JavaScript data types, arrays, loops, and conditions
- Compose functions, objects, prototype inheritance
- Write JavaScript design patterns

Approach to Learning

This course uses a variety of approaches including: live lessons in Adobe Connect, class discussions, videos, learning activities, readings, and coding exercises in class.

Learning Resources

Your course will use Desire2Learn (D2L) – the University of Calgary learning management system. Your instructor will describe how D2L will be incorporated into your course experience.

Adobe Connect will be used to provide interactive experiences in a virtual classroom for each live session and to provide student groups an online meeting space. Your instructor may also use Adobe Connect to evaluate student work.

For help with D2L, Adobe Connect, library access or IT support, go to: http://conted.ucalgary.ca/info/online-resources.jsp.

Workload Expectations

This is a 30 hour course running over a period of 5 weeks. Expect to spend about 5-6 hours a week on course tasks, in addition to classroom or online lessons.

Attendance

Attendance is strongly encouraged but not graded. It is to your benefit to attend all scheduled sessions/events so that you are best prepared to succeed on course assignments. Should you have a scheduled absence, please let your instructor know with as much notice as possible. The instructor will not review the information that you missed. It's strongly recommended that you find a "study buddy" who can catch you up on any missed content.

Course Assignments

You are required to complete 3 graded assignments. For details, look in the **Assignment Details** module in the Table of Contents of your D2L course.

| Assignment Name | Value | Due Dates |
|---|-------|--|
| Assignment 1: Develop a dynamic to-do list | 30% | July 19, 2022 |
| Assignment 2: Enhance the to-do list from Assignment 1 using object oriented concepts and HTML5 API | 35% | Aug 2, 2022 |
| Assignment 3: Develop a reservation system javaScript library with visualization capability. | 35% | Aug 11, 2022 (one week after last class) |

Continuing Education Grading System

A minimum grade of C is required to meet certificate program graduation requirements. A grade of C- or less is not sufficient for graduation and the hours will not apply to your certificate program. Please refer to the graduation requirements: http://conted.ucalgary.ca/info/graduation.jsp

Grades displayed in D2L are not official. Approximately three weeks after your course ends, you will receive an email with instructions to access your official course grade through the My ContEd Student portal.

| Letter Grade | Percentage | Description |
|--------------|------------|--|
| A+ | 95 – 100 | Outstanding |
| Α | 90 – 94 | Excellent: Superior performance, showing comprehensive understanding of subject matter. |
| A- | 85 – 89 | |
| B+ | 80 – 84 | |

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| Letter Grade | Percentage | Description |
|--------------|------------|--|
| В | 75 – 79 | Good: Clearly above average performance with knowledge of subject matter generally complete. |
| B- | 70 – 74 | |
| C+ | 67 – 69 | |
| С | 64 – 66 | Satisfactory (minimal pass): Basic understanding of subject matter. Minimum required in all courses to meet certificate program requirements. |
| C- | 60 – 63 | Unsatisfactory: Receipt of a C- or less is not sufficient for <u>certificate</u> <u>program requirements</u> . |
| D+ | 55 – 59 | Unsatisfactory |
| D | 50 – 54 | Unsatisfactory |
| F | 0 – 49 | Fail |
| AU | | Course Audit: No course credit. |
| CR | | Completed Requirements |
| DNC | | Did Not Complete: The DNC grade is assigned to students who neither attended the course, nor submitted any assignments and did not formally withdraw from the course. (Did not attend + did not submit any assignments + did not formally withdraw = DNC). Students who do not formally withdraw by contacting Continuing Education Student Services are still considered registered in the course, even if they have stopped attending classes or submitting assignments. Students will be assigned a grade based on any/all assignments submitted. |

Academic Honesty

Any work that you submit in a Continuing Education course must be your own and must be created specifically for the course for which it is being submitted.

Go to the Continuing Education web page on Academic Honesty to learn more about plagiarism and the consequences of plagiarizing: http://conted.ucalgary.ca/info/honesty.jsp

Course work must make use of the American Psychological Association (APA) citation style to reference the work of others (or yourself). Learn more about APA here: https://owl.english.purdue.edu/owl/resource/560/01/

Here is a narrated presentation on referencing and how to avoid plagiarism: http://www.ucalgary.ca/cted/breeze/referencing

Copyright: Guidance for Students

All material used in the course is for the sole use of the individual and should not be recopied in either print or digital format. For copyright guidelines, including those relating to photocopying and electronic copies, please refer to the fair dealing guidelines: https://library.ucalgary.ca/ld.php?content_id=34108857

Late Assignments

Extensions for assignments must be requested well in advance of their due date and will be granted at the sole discretion of the instructor. In the absence of an approved extension, late assignment submissions will be deducted 5% per day. **Note**: Extensions will not be granted for online discussion participation (Online courses), presentations and/or group work.

Academic Accommodations

Calgary, AB

Student Accessibility Services (SAS) offers services to all UCalgary students with documented disabilities ranging from learning deficit, learning disabilities, chronic health issues, hearing and visual impairment and temporary impairment due to accident, illness or injury. If you are a student with a documented disability who may require academic accommodation, please contact SAS, ideally a few weeks before your course begins at 403-210-6019 or access@ucalgary.ca. Students who have not registered with SAS are not eligible for formal academic accommodation.

Continuing Education Policies and Procedures

For more information about grades, refunds, withdrawals, transfers, academic/non-academic misconduct and forms, please visit: http://conted.ucalgary.ca/info/

Continuing Education Contact Information

| Visit Us | Call Us | Email Us |
|--|-------------------------------|--------------------|
| Office Hours: | 403.220.2866 | conted@ucalgary.ca |
| Monday to Friday 8:30 a.m. to 4:30 p.m. | 1.866.220.4992 (Toll-Free) | |
| Location: | | |
| Energy Resources Research Building N140, 3512 33rd Street NW | | |

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Course Schedule

Please review this schedule of tasks. See above for specific assignment due dates.

| Date | Topic | Learning Activities & Assignments |
|--------------------------|--|---|
| Pre-Course Activities | Set-up your computer | Configure your computer and web browser for Adobe Connect. Make note of important course dates and match them against your schedule. |
| Week 1 July 5,7 | Review of JavaScript introductory topics - Syntax and variables Data Types Operators Built in JavaScript objects Functions Arrays Conditions Debugging Basics of Regular expression Creating custom objects in JavaScript How to handle and generate JavaScript events | |
| Week 2 July 12,14 | HTML5 API Introduction to HTML5 API File API File System Drag and Drop Offline Indexed DB Web workers Error Handling | |
| Week 3 July 19,21 | Animation | Assignment 1 due |

| Date | Topic | Learning Activities & Assignments |
|-------------------------|--|--|
| Week 4 March 26,28 | Closures Intro to design patterns | |
| Week 5 Aug 2,4 | Creating your own library Using External libraries | Assignment 2 due. Assignment 3 due on April 2 |
| Final Course Task(s) | Submit the Course Evaluation Survey | Take 15 minutes to fill out the anonymous course evaluation survey that has been emailed to you. Note: Instructors do not see the results of the survey until final grades have been submitted. |