

COMP 1073: CLIENT-SIDE JAVASCRIPT

Course outlines are reviewed annually as part of continual quality improvement. This course was last updated for the effective term below.

Effective Term

Fall 2023

Full Course Title

Client-Side JavaScript

Academic Level

Post Secondary

Subject Code

COMP - PS Computers

Course Number

1073

Grade Mode

Numeric

PLAR Applicable

Yes

Total Hours

42

Course Description

The use of client-side scripting to implement interactive behaviour within the browser environment is an important part of modern web applications. Standard client-side scripting syntax, operations, conditional statements, loops, functions, methods, and objects are examined. Students learn to manipulate the standard Document Object Model (DOM), by modifying the structure (HTML) and the appearance (CSS) of Web pages and/or interfaces for the purposes of improving the user experience.

Prerequisite Course(s)

COMP 1002 - HTML, CSS, and JS Fundamentals

COMP 1030 - Programming Fundamentals

Prerequisites where one of the following fulfills the requirement:

Students must have successfully completed the following courses:

- COMP 1002 HTML, CSS, and JS Fundamentals
 - **AND**
- COMP 1030 Programming Fundamentals
 - or COMP 1043 Java Introduction (ODE)

Transfer Credit Course(s), can be used for credit towards this course

COMP 1105 - JavaScript (ODE)

Equivalent(s) Courses (Two-Way)

COMP 2089 - Web Standards

Course Content

- introduction to JavaScript
- variables, operators, strings, and scope
- arrays
- conditionals and loops
- functions
- events, listeners, and handlers
- introduction to objects

- object prototypes
- objects, data, and JavaScript Object Notation (JSON)
- Document Object Model (DOM) APIs
- server-based APIs (third-party)
- multimedia APIs

Course Evaluation

The passing grade for this course is 50% unless otherwise noted below. The evaluation is comprised of:

- assignments 50%
- tests and quizzes 40%
- labs 10%

Tests/examinations/assignments must be written/submitted at the time specified. Requests for adjustments to that schedule must be made before the test/exam/assignment date to the faculty member. Failure to do so will result in a mark of "0", unless an illness/emergency can be proven with appropriate documentation at no cost to the College.

The passing grade for all courses is 50%, or letter grade of P (Pass) or S (Satisfactory) unless otherwise noted below. The passing weighted average for promotion through each semester of a program is 60% and is a requirement to graduate.

Academic Appeal

Students at Georgian College can appeal the following:

- A mark on an assignment, test, examination or work-integrated learning term
- Missing or incorrect assessment information on a grade report and/or transcript
- A charge of academic misconduct

Note: Students cannot appeal a final grade. It is the academic work that is appealable leading to the final grade i.e. final test, exam or assignment.

Refer to Academic Regulations in the Academic Appeal section for further details.

Course Learning Outcomes

Upon successful completion of this course, the student has reliably demonstrated the ability to:

1. employ the most common functions and methods used with current client-side JavaScript techniques;

This learning outcome meets the following Essential Employability Skill(s):

EES5: Critical thinking to solve problems
EES6: Organization of information

Evaluation

Introduced
Reinforced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

2. manipulate DOM node element attributes, textual content, and Cascading Style Sheet (CSS) properties;

This learning outcome meets the following Essential Employability Skill(s):

EES5: Critical thinking to solve problems
EES6: Organization of information
EES7: Application of research and information

Evaluation

Introduced
Reinforced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

3. test and debug scripts using validators, DOM inspectors, and error console tools;

This learning outcome meets the following Essential Employability Skill(s):

EES4: Approaches to problem solving
EES5: Critical thinking to solve problems
EES7: Application of research and information

Evaluation

Introduced
Reinforced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

4. optimize code for increased functionality, performance, readability, and reusability;

This learning outcome meets the following Essential Employability Skill(s):

EES1: Communication
EES6: Organization of information
EES7: Application of research and information
EES8: Respect for others

Evaluation

Introduced
Reinforced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

5. construct a variety of programming structures including variables, constants, arrays, objects, functions, conditionals, and constructors;

This learning outcome meets the following Essential Employability Skill(s):

EES4: Approaches to problem solving
EES5: Critical thinking to solve problems
EES6: Organization of information
EES7: Application of research and information

Evaluation

Introduced
Reinforced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

6. design and build an interface that leverages a popular third-party API.

This learning outcome meets the following Essential Employability Skill(s):

EES4: Approaches to problem solving
EES5: Critical thinking to solve problems
EES6: Organization of information
EES7: Application of research and information
EES8: Respect for others

Evaluation

Introduced
Reinforced
Assessed

Key: 3703