# INT222 - Lab 01: JavaScript – the basics (Ver 2.2)

## Due date

Section D: Wednesday, Sept 21, 2016 - 23:59

Grade value: 5% of your final course grade

## Objective

Practise JavaScript basic syntax, built-in functions, and user defined function.

## Specifications

Write a JavaScript program **lab01.js** to perform the following tasks. No validation is required for user input – assume that the user will enter valid information.

Open a Firefox Scratchpad. Create comment line(s) for each of the Tasks in lab1 using block comments, indicating the start point of each Task. e.g.

```
/*****************************
 * Task 1
 *****************************/
```

To run part (e.g. the code for Task 1) of your JavaScript code in Scratchpad, you need to highlight that part of code and click on the ***Run*** button. Variable values will be kept in memory after a piece of code is run. So, usually, you need to initialize variables to ensure the part of code can repeatedly give the same result.

### Task 1: Student info

a. Store the following information in variables: ***student name***, ***number of courses*** (currently taking), ***program***, ***having a part-time job*** (true/false).
b. Output your student info to the browser console like so: "My name is ??? and I'm in ??? program. I'm taking ??? course in this semester." (NOTE: The "???"s should be replaced with variable or calculated values - this also applies to all other outputs containing ??? listed in this lab).
c. Store the string "have" or "don't have" into a variable based on the value of the variable storing whether or not you ***have a part-time job*** (true/false).

d. Output your updated student info to the console like so: "My name is ??? and I'm in ??? program. I'm taking ??? course in this semester and I ??? a part-time job now."

**Task 2: Birth and graduate year**

a. Store the current year in a variable.
b. Prompt to user "Please enter your age:" and store the input value in a variable.
c. Output the birth year to the console like so: "I was born in the year of ???."
d. Prompt to user "Enter the number of year you expect to study in the college:" and store the input value in a variable.
e. Output the graduate year to the console like so: "You will graduate from Seneca college in the year of ???."

**Task 3: Celsius and Fahrenheit temperatures**

a. Store a Celsius temperature into a variable.
b. Convert it to Fahrenheit and output "??°C is ??°F".
c. Store a Fahrenheit temperature into a variable.
d. Convert it to Celsius and output "??°F is ??°C."

Note: visit this page for temperature conversion formula.

**Task 4: Even and odd numbers**

a. Write a for loop that will iterate from 0 to 10. For each iteration, your should check if the current number is even or odd, and output to the browser console (e.g. "5 is odd").

**Task 5: Larger or largest number**

a. Write a function named **largerNum** using the declaration approach, the function:
   - takes 2 arguments, both numbers,
   - returns the larger (greater) one of the 2 numbers.

b. Write a function named **greaterNum** using the expression approach, the function:
   - takes 2 arguments, both numbers,
   - returns the greater (larger) one of the 2 numbers.

c. Call these functions twice with different number parameters, and log the output to the web console with descriptive outputs (e.g. "The larger number of 5 and 12 is 12.").

**Task 6: Evaluator**

a. Write a function named **evaluator** that:
   - takes unknown number of arguments which are all number scores,
   - returns true if the average of these number scores is greater than or equal to 50. Otherwise return false.

b. Call these functions 3 times with different number parameters, and log the output to the web console with descriptive outputs.

**Task 7: Grader**

a. Write a function named **grader** that:
   - takes a single argument which is a number score,
   - returns a grade for the score - "A", "B", "C", "D", or "F".

b. Call these functions 3 times with different number score, and log the output to the web console with descriptive outputs.

**Task 8:**

a. Write a function called showMultiples using the declaration approach, the function:
   - Takes 2 numeric arguments (num, numMultiples) – assume the user is entering valid (positive) whole numbers
   - Outputs all of the multiples of the num argument from 1 to numMultiples: for example, if num = 5 and numMultiples = 4, the function would output:

     5 x 1 = 5
     5 x 2 = 10
     5 x 3 = 15
     5 x 4 = 20

## Lab submission

- Save your file as **lab01.js**. And add the following declaration at the top of your code:

```
/*********************************************************************
 *                     INT222 – Lab 01
 * I declare that this assignment is my own work in accordance with Seneca
 * Academic Policy.  No part of this assignment has been copied manually or
 * electronically from any other source (including web sites) or distributed to
 * other students.
 *
```

```
* Name: _____ Student ID: _____ Date: _____
*
*************************************************************************/
```

- Submit your lab01.js to the Blackboard (My.Seneca).

## Important note

- NO LATE SUBMISSIONS for labs. Late Lab submissions will not be accepted and will receive a grade of zero (0).
- After the end (23:59) of the due date, the lab submission link on the Blackboard will no longer available.
- All INT222 labs are subject to change after released. It's your responsibility to keep your lab assignments up to date before the lab is submitted.