# MIS2402 - Exam 3 - Study Guide

## The format of the exam

The exam will be a hands-on programming challenge. The exam is composed of three programming challenges (A,B, and C). You will have the entire class in which to complete the exam.

The exam is a closed book exam. You can use some electronic/online resources. Any class assignments, examples or notes you have here may be used. Here they are:

• http://misdemo.temple.edu

• http://community.mis.temple.edu

You will be required to complete 5 functions. Some of the functions will depend on eachother. Each function will be worth 20 points. Each function will be graded on a works/doesn’t work basis. There will be a total of 100 points on the exam.

Each question is meant to assess your comprehension of topics we have learned up to this point in time. Here’s a list of topics we have covered so far:

1. JavaScript – Variables and Expressions
2. JavaScript – Functions
3. JavaScript – Conditional Statements
4. JavaScript – Numbers
5. JavaScript – Loops
6. JavaScript – Strings

You should complete your work your own computer and then upload it to the class server. You must do this before the end of the exam. Each challenge will be in its own folder – exam3a, exam3b, and exam3c. It is recommended that you upload each folder as you complete it.

Be sure to put your work into your wwwroot folder, and also make sure that you can access your work by calling it up in a browser.

Only your work uploaded to the class server will count towards your exam grade. Students will not receive credit for missing / misplaced / misnamed work.

## Study tips

If you haven’t been following along with the class, it is difficult to “catch up” and compensate for a lack of practice. Below is a list of the skills and concepts that the exercises and challenges were developing.

1. Set up a project in VS Code
2. Upload work to the class server
3. JavaScript Fundamentals
4. Data types: numbers, strings, Booleans
5. What are valid / invalid variable names? How to declare and assign a variable using var.
6. Math operators: +, -, \*, /, %
7. Print the value to the console using console.log()
8. Useful functions: isNaN(), parseInt(), parseFloat()
9. Comparison operators: ==, !=, >, <, >=, <=
10. Logical operators: !, &&, ||
11. The syntax of “if” statements (“if - else if - else”). This includes the ability to compare variables and/or literal values.
12. The syntax of a “for” statement. This includes the use of the “++” operator to add one to a variable. (As in: “i++”).
13. Passing values in to a function with parameters and getting a result with return.
14. String variables as objects: the .length property and the .toUppercase() method
15. Number variables as objects: the .toFixed() method.
16. Other
17. The Google Developer Tools – what’s a breakpoint? Use the F9 key to step through code.

## Advisories

1. Transferring your exam work to another student, either deliberately or through negligence, will be considered cheating and result in a zero for the exam. **Incidents of academic dishonesty will be escalated to the University Disciplinary Committee**.
2. Be advised that the exam will be remotely proctored.
3. Only one screen per student will be permitted. Students found using more than one electronic device will earn a grade of zero on the exam.
4. You have the whole class period in which to complete the exam. If you do not upload your solution before the end of class, you will receive a zero on the exam.

Example Questions:

-Write a function that gets a number, z, as the input and the adds returns the value of: sum of all odd numbers between 3 and x.

-Write a function that gets a string, z, as the input and adds all the numeric characters in that sentence together:

e.g., z=“Dr. Martin began his 1st study in 1940.” 🡪 result= 1+1+9+4+0 = 15.

- Write a function that gets a string, z, as the input and adds all the positions of numeric characters in that sentence together (Note: if the number appears in the beginning of the sentence as the first character, the value of its position is 0).

**Note: parseInt() and parseFloat() functions should be used to turn a numberic character hold in a string variable (e.g., “5”) into an actual integer or float number (e.g., 5).**