Introduction to Computer Science and Programming
CS 142 - Spring 2021

Instructor: George Thomas **Office:** Halsey 218
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Virtual Office Hours: MTuWTh 10:00-11:00 AM
Or by appointment
Collaborate Ultra link on Canvas

Lecture:	Tuesday	11:30-1:00	Halsey 208
Lab:	Thursday	11:30-1:00	Halsey 101C

Prerequisites: Mathematics 103 with a grade of C or better, or qualifying for either Mathematics 104 or Mathematics 171 via Math Placement Test.

Required Textbook: *A Balanced Introduction to Computer Science,* Third Edition, David Reed, Prentice Hall.

Course Website: UWO Canvas

Note: If you have special needs, please do talk to me at the end of the first class.

Statement Regarding Classroom Mask Requirements:
- All students are required to wear an appropriate face mask that covers their mouth and nose when they are in the classroom.
- Students must maintain appropriate physical distance from classmates and adhere to any additional expectations communicated by the instructor or posted in the classroom.
- UWO procedure dictates that, during the COVID-19 pandemic, an instructor cannot begin class until all students are wearing a mask properly. If a student is non-compliant with the masking policy and also refuses to leave the classroom promptly when requested, the instructor is required to cancel class. Students responsible for class cancellation for these reasons will be referred to the Dean of Students office, and the student will be unable to attend class until they meet with the Dean of Students. The student may be dropped from the class by the Dean of Students.

Statement Regarding Disinfecting Workspaces in Classrooms:
- Students will disinfect their workspace prior to the start of each class. Upon entering the classroom, students will go to get a disinfectant wipe from the canister in the room. They will use the wipe to clean the arms of the chair and the work surface being used. If the chair is not fabric, student may choose to wipe the seats and backs of the chairs as well. Wipes should be tossed into the garbage receptacle in the room.
- Eating and drinking is prohibited in classrooms during the spring 2021 semester.

Current Catalog Description:
In this course, students will be introduced to the science of computing. The history of Computer Science, Elementary computer organization, big ideas in computing, algorithmic problem solving, and introductory programming concepts will be discussed. Programming concepts include data types, expressions, input/output, conditional statements, repetition, data processing, procedures

and basic object-oriented principles. Programming concepts will be taught through the use of a specific programming language. The course assumes no previous programming experience.

Course Outcomes:
At the end of this course, you will be expected to:

1. Identify the core areas and big ideas in computer science.
2. Describe the difference between an algorithm and a computer program.
3. Identify the main components of the von Neumann architecture.
4. Describe the architecture and major components of a web application in a client server environment.
5. Given a description of a problem, apply the problem-solving steps used in computer programming to create a solution design.
6. Working from a solution design, implement a solution to a problem as a JavaScript program that runs in a web browser such as Firefox or Chrome.
7. Select the appropriate data types when implementing a solution to a problem using JavaScript.
8. Identify and implement selection control structures using if, if-else, and if-else-if statements in JavaScript.
9. Identify and implement repetition control structures using loops in JavaScript.
10. Identify and implement functions in JavaScript.
11. Design an HTML form for collecting user input with validation in JavaScript.
12. Process an array or collection of items in JavaScript.

Course Grading Policy:
Your final grade for this course will be based on four components, namely exams, programming projects, homework and class participation. Your overall numerical grade for the course will be computed as the weighted sum of the component grades using the following weights:

Component	Weight
Exams (3)	50%
Programming Project	10%
Labs	30%
Homework	10%

Tentative Exam Dates are as follows:

- **Exam 1 – Tuesday, 3/02**
- **Exam 2 – Tuesday, 4/06**
- **Exam 3 – Tuesday, 5/11**

Your letter grade for the course will be computed as follows:

Numerical Score	Grade	Numerical Score	Grade
>=92	A	72-78	C
90-92	A-	70-72	C-
88-90	B+	68-70	D+
82-88	B	62-68	D
80-82	B-	60-62	D-
78-80	C+	<60	F

While this overall grading scheme is fixed, I will be happy to discuss any issue you may have with individual grades. If you notice a mistake or have a question regarding a specific grade, please come and talk to me *as soon as possible*. Do not wait until the end of the semester to bring up grading issues.

Deadlines:
Each programming project, lab and homework will come with a deadline (day and time) by which it must be submitted. Late submissions will NOT be accepted.

Attendance Policy:
Since this course is offered in Hyflex mode, you may attend in-person, online in synchronous mode, or online asynchronously. While I do not require attendance, I do encourage you to attend in-person or in synchronous-online mode and hope it will be beneficial to you. If you have indicated, in the pre-semester survey, that you would be attending class primarily face-to-face, I do expect you to make every effort to come to class in-person. Lectures will also be recorded and available for asynchronous viewing later. All homework, labs, projects and exams will be submitted electronically.

Extensions and Makeups:
Extensions on deadlines may be granted at the discretion of the instructor if you provide a valid justification (in the form of a written excuse from a medical doctor or the Dean of Students Office) **before** the due date.

If you miss a scheduled exam (tentative dates are provided), you **may** be able to take a make-up exam provided you give the instructor a valid justification (see above) ahead of time if possible. Only one make-up exam will be given. It will be a comprehensive exam scheduled at the end of the semester.

Collaborating versus Cheating:
Unless otherwise stated in the assignment or project, all submissions must be entirely your own work. While it is acceptable to discuss the assignments at a high level (for example, at the design level) with others, you must submit your own work. **You may not "borrow" any piece of code or design of any length from someone else, the internet, or any other source, unless you can live with a zero and the other potential academic sanctions of cheating** (see UWO Student Discipline Code 2007, Chapter UWS 14).

Statement Regarding Diversity, Equity & Inclusion:
Diversity drives innovation, creativity, and progress. At the University of Wisconsin Oshkosh, the culture, identities, life experiences, unique abilities, and talents of every individual contribute to the foundation of our success. Creating and maintaining an inclusive and equitable environment is of paramount importance to us. This pursuit prepares all of us to be global citizens who will contribute to the betterment of the world. We are committed to a university culture that provides everyone with the opportunity to thrive.

Required Disclosure Statement:
Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990:
https://uwosh.edu/financialaid/consumer-information/