Object-Oriented Design and Programming I

CS 221 - Fall 2021

Instructor:	Hannah Hillberg	**Section:**	001C	
	(she/her/hers)	**Credits:**	3	
Email:	hillbergh@uwosh.edu	**Lecture:**	MW 9:10-10:10am	Halsey 212
Office:	Halsey 217	**Lab:**	F 9:10-10:10am	Halsey 101C

Office Hours: 10:20-11:20am MWF (In-Person)

3:00-4:00pm TuTh (Virtual - Link in Canvas)

Course Information

A first course in problem solving, software design, and computer programming using an object-oriented language. Problem solving/software design techniques include: flow charts, pseudo code, structure charts, and UML class diagrams. Data structures and algorithms include: arrays, characters strings, Linear search. Programming topics include: data types, assignment statements, standard input/output, selection, repetition, functions/methods, parameters, scope of identifiers, debugging.

Prerequisites: A grade of C or better in Math 104 or Math 108 or Math 206 or Computer Science 142, or qualifying for Math 171 via the Mathematics Placement Exam.

Course Outcomes

At the end of the course, students will be able to:

1. Choose appropriate existing data types to represent data.
2. Control sequential program execution with selection and iteration constructs.
3. Manipulate collections of data using arrays.
4. Create and use methods to organize and re-use code.
5. Create and use new classes to model new data types.
6. Reason about algorithms to solve problems and convert an algorithm into programming language instructions.

Course Website: UWO Canvas

You should check Canvas on a regular basis - it will contain lecture notes, assignments, announcements, and grades. I'll do my best to let you know when something new and important comes up, but it is your responsibility to check the website frequently.

Required Textbook:

COMP SCI 221: Object-Oriented Design and Programming I, Online book by Zybooks.

Subscription Instructions:

1. Create an account at https://learn.zybooks.com. You are required to use your uwosh email as your login. You may need to also provide your ID number.

2. Enter zyBook code: UWOSHCOMPSCI221HillbergFall2021

3. Subscribe. A subscription is $58 and will last until December 31, 2021.

Course Grading Policy
Your final grade for this course will be based on four components, namely exams, programming projects, labs, and participation and challenge activities. 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)	42%
Programming Projects	28%
Labs	20%
Participation and Challenge Activities	10%

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.

Tentative Exam Dates:
• Exam 1 – Wednesday, October 13
• Exam 2 – Monday, November 22
• Exam 3 – Wednesday, December 15

Labs & Demos
Labs are intended to provide practice of the week's material during the lab session for that week. Each lab has one explicitly assigned lab session unless otherwise noted. Labs are designed to be completed in the lab hour (or a little longer). You should prepare for the lab in advance of the lab session so you can use the session to actively work on the lab. That is, instead of using the lab time to review, review ahead of time in preparation.

To successfully complete a lab, you must do ***both*** of the following by the lab's deadline:
1. **Demo**nstrate the lab to the lab assistant or instructor. This demo should take place either in the lab session in which the lab was assigned, or it may take place at the very beginning of the following lab session that it's due before.
   > To ensure that every student has adequate time to complete a lab, each lab is due one week after its assigned lab session, ***at the beginning of/<u>before</u>*** the next lab session. If you are unable to finish your lab during the assigned session, complete it during the week and then demonstrate it during the beginning of the next lab session. For example, if the assigned session for a lab is 9/10, then the lab must be completed by the beginning of the next lab session on 9/17.
   >
   > Even though you have a week to complete labs, it is to your advantage to work on/complete them as soon as possible (preferably during their assigned lab session) to engage with the material as soon as possible after learning it, and to be able to seek help and ask questions if needed. Working on/completing the lab is also important to solidify the week's material before the following week's lectures which will continue building on material from the previous week. For these reasons, do ***not*** wait until the end of the following week to *start* the lab for the previous week.
2. **Submit** the electronic version of your program, zipped up in a single folder, to the appropriate Lab Assignment on Canvas.

Deadlines and Late Days
Each lab and participation activity will come with a deadline by which it must be submitted. <u>Late lab or participation activity (zyBook assignment) submissions will NOT be accepted.</u>

Each project will also come with a deadline (day and time) by which it must be submitted. You are allotted **three *project credit days*** that you can use to submit a project after its deadline without penalty. A credit day is exactly 24 hours or less. Please keep in mind that three days is not much, so plan to hit the deadlines and save the late days for real emergencies. <u>Any project submitted after the deadline, plus any credit days you have unused, will receive a zero.</u>

Dean of Students
The Dean of Students Office (DOS) helps students in navigating the university, particularly during difficult situations, such as personal, financial, medical, and/or family crises. DOS assists students with Out of Class Letters to faculty, Late Withdrawals/Drop for personal

or medical issues, advocacy, and coordinates care for students through the Student Care Team. http://www.uwosh.edu/deanofstudents

Attendance
It has been scientifically proven that the most significant factor for predicting student success is attendance (although whether this is truly causation or merely correlation is another question). However, you are also an adult and are free to make your own choices. Thus, though attendance (or lack thereof) is likely to affect your grade, it will not be tracked explicitly. It is implicitly required, however, to complete in-person exams and lab demos.

Academic Integrity
The purpose of this course is for **you** to learn to program and problem solve, so the work that you turn in must be **your own**. While discussion of ideas and problems with fellow students is encouraged, all course work must be completed individually. To be clear, my cardinal rules to prevent academic dishonesty include:
- Your fingers on your keyboard
- Your eyes on your own work / notes / textbook

Any work you submit should come from your own physical typing of your own work. Physically typing while looking at someone else's work, whether another student (past or present) or a stranger on the Internet, is plagiarism and is not acceptable. Copying and pasting (including keyboard shortcuts with your fingers on your keyboard...) is also not acceptable (...nice try).

It's okay to search online to research general concepts or to reference programming documentation. It's *not* okay to Google for solutions to reference--at this point you are referencing the result of someone else's problem solving instead of experiencing it yourself. Instead seek help from your instructor or tutors. We want to support you on your path to gaining the necessary skills and reasoning through the problems you're faced with. Make sure you start coursework early so that you can seek help if necessary.

Any suspected academic dishonesty will be dealt with on a case-by-case basis. Any clarification of what does or does not constitute academic dishonesty must take place *before* you turn in questionable work. For clarification on what constitutes academic dishonesty, contact me or consult the printed policy in the UWO Student Discipline Code, Chapter UWS 14.

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.

Building relationships and community is one of the most important goals of this University. To build community is to honor each person in terms of their identity. Each student in the course will conceive of their identity in different ways; important aspects of identity may include ethnicity, ability, sex, sexuality, gender, gender expression, gender identity, religious beliefs, political affiliations, and/or class, to name just a few. Thus, each of us, myself included, must honor each students' identity in all its complexity. We need to work on listening to others, taking up perspectives unlike our own, challenging our assumptions and finding a route toward understanding the similarities and differences between ourselves and others.

I am committed to creating an anti-discriminatory classroom climate in which all students feel safe, supported, and affirmed. I ask that everyone in the class join me in committing to the creation of a welcoming space free of discrimination, bullying, and harassment in which each student can find a sense of belonging.

Pronouns/Names
My personal pronouns are she/her/hers. If you feel comfortable, please feel free (but not required), to disclose to me your personal pronouns. I will do my best to use them. Please also respect your peers' personal pronouns in face-to-face and online interactions.

Bias Incident Reports
All participants in this course deserve to be treated with dignity and respect. This campus will not tolerate acts of discrimination, and the use of language that's sole purpose is to injure another does not reflect who we are as Titans. Civility is a campus value at UW Oshkosh. If an instance of bias occurs, either inside or outside the classroom, students are encouraged to fill out the Bias Incident report. http://uwosh.edu/police/bias-incident-report

Accessibility, Inclusion, Religious and Veteran Accommodations
I will provide, on a flexible and individual basis, reasonable accommodations to students who have documented disabilities that may affect their ability to participate in course activities or to meet course requirements. Please consult with the Accessibility Center to create such documentation and develop a plan for reasonable accommodations to share with me. The Accessibility Center is located in Dempsey Hall 125. You are also welcome to contact the Accessibility Center at (920) 424-3100 or accessibilitycenter@uwosh.edu. For more information, visit the Accessibility website at http://www.uwosh.edu/deanofstudents/accessibilitycenter.

It is also the policy and practice of UW Oshkosh to create an inclusive learning environment. If there are aspects of the instruction or design of this course that result in barriers to your inclusion, please notify me as soon as possible. This includes religious holidays or other days of special religious significance that may conflict with course activities: I will honor your faith traditions and I will work with you to make necessary accommodations, provided that you notify me of the conflict as soon as possible.

Veteran, active duty, reserve, or national guard students with military-affiliated special circumstances (e.g., upcoming deployments, drill requirements, disabilities, VA appointments, etc.) should communicate these with as much notice as possible. I will work with you and / or put you in contact with the Veterans Resource Center at (920) 424-1804 or veterans@uwosh.edu or other University staff who are trained to assist you.

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. 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 cancelation 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.

Students who have a medical condition prohibiting them from wearing a face mask may present written documentation from their health care provider, stating that the individual cannot wear a face mask. Students must present this documentation to the Accessibility Center in the Dean of Students office. In these situations, face shields will be provided to that student through the Risk & Safety Office upon request from the Accessibility Center.