

# Object-Oriented Design and Programming I

CS 221 - Fall 2023

<b>Instructor:</b>	Hannah Hillberg (she/her/hers)	<b>Section:</b>	002C
<b>Email:</b>	hillbergh@uwosh.edu	<b>Credits:</b>	3
<b>Office:</b>	Halsey 217	<b>Lecture:</b>	MW 12:50-1:50pm Halsey 309
<b>Office Hours:</b>	12:40-1:40 pm MWF 9:30-11:30 am Th	<b>Lab:</b>	F 12:50-1:50pm Halsey 101C
		<b>Department Tutors:</b>	Schedule on Canvas

## Course Information

A first course in computer programming, problem solving and software design using an object-oriented language. Programming topics include: data types and variables, assignment and expressions, standard input/output, branches/selection, repetition, arrays, functions/methods, and objects. Problem solving and software design techniques include: algorithm development and pseudocode, debugging, and UML class diagrams.

**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: UWOSHCOMPSCI221HillbergFall2023
3. Subscribe. A subscription is \$64 and will last until December 29, 2023.

### 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)	45%
Programming Projects	30%
Labs	20%
Participation and Challenge Activities	5%

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

Numerical Score	Grade	Numerical Score	Grade
$\geq 92$	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 11
- Exam 2 – Monday, November 20
- Exam 3 – Wednesday, December 13

### **Weekly Activities (Participation/Challenge Activities and Labs)**

Each week is structured to have lectures on Monday and Wednesday and then lab on Friday. The focus of the front half of each week is to learn new material, and the focus of the latter half of each week is to further learn and practice that week's material. Thus, participation/challenge activities from the zyBook will be assigned and due for the front half of the week, and the lab will be due prior to lab that week, where it will be discussed and demonstrated during lab. Students will be expected to complete the lab to the best of their ability prior to the lab session, and then will be able to submit a "final" (corrected) version after the lab session. The goal is to better match the pace of the coursework in the class with the pace of the material in the class, while also giving detailed and timely feedback.

### **Deadlines and Late Days**

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

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. Any project submitted after the deadline, plus any credit days you have unused, will receive a zero.

### **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 to participate in lab demos.

### **Academic Integrity (and AI Policy)**

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
- No copy/paste, no download, no direct sharing of documents

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 or to find answers to questions that you have. It's **not okay** to search or ask AI for complete solutions to reference--at this point you are referencing the result of someone else's problem solving instead of experiencing it yourself. ***Doing it yourself is where the learning happens.***

To be explicit, the following are unacceptable and will be considered academically dishonest:

- Do not ask it to perform any work for you that you will be submitting (i.e., zyBook, lab, or project exercises/tasks for you; do not ask it to answer participation/quiz/exam questions for you).
- Do not ask it to "fix" your work for you. Make your best attempt at fixing your work on your own before consulting help (from AI or any other source!)
  - If you do consult help, make sure you understand how/why it was fixed so that you would be able to do it again independently yourself.

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 student's 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](mailto: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](mailto:veterans@uwosh.edu) or other University staff who are trained to assist you.

### **Disclosure**

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/>