

Course Syllabus

Spring 2026 College of the Redwoods



Course Information

Semester & Year: Spring 2026

Course ID & Section #number: CIS-18-E9914 Object Oriented Programming

Instructor's name: Trevor Hartman

Day/Time of required meetings: Tuesday, Thursday 2:15PM - 5:25PM

Location: HU-210

Number of proctored exams: 3

Course units: 4

Instructor Contact Information

Office location or Online: Eureka Campus, HU-210 and Zoom by appointment

In-Person Office hours: **Mon, Wed, Thur 12:15PM - 2:15PM (HU-210)**

Online Office hours: **Tue, Fri 10:00AM - 11:00AM (Zoom)**

Phone number: [\(707\) 476-4366](tel:7074764366)

Email address: trevor-hartman@redwoods.edu

Canvas messaging is the best way to communicate with me. I check it for student needs consistently, and receive notifications.

Required Material

Required Textbook:

Textbook title: [Head First Design PatternsLinks to an external site.](#), ISBN: 978-1492078005,
Author: Eric Freeman, Elisabeth Robson, Publisher: O'Reilly

Optional Textbook(s):

Zero Cost Textbook title: [Think Python, 3rd edition](#)

You can order or print electronic versions of Think Python 3e from [O'Reilly Media Links to an external site.](#) or [Amazon Links to an external site.](#)

Zero Cost Textbook title: [Think Java, How to Think like a Computer Scientist](#)

Alternate Online Sources(s):

- [Refactoring GURULinks to an external site.](#)
- [THartmanOfTheRedwoods \(My notes for you!\)Links to an external site.](#)
- [TutorialPoint - Design Patterns in JavaLinks to an external site.](#)
- [Geeks for Geeks - Design Patterns in JavaLinks to an external site.](#)
- [Geeks for Geeks - Software Design PatternsLinks to an external site.](#)

Required Software: [IntelliJ, PyCharm IDE Links to an external site.](#), [Git Links to an external site.](#), [GitHub Account Links to an external site.](#)

- You don't need the professional edition, though the download gives you a 1 month trial.
- You will also need [Git](#), which can be installed once IntelliJ and/or PyCharm is installed, we will work on this Week 1! [IntelliJ Links to an external site.](#)
- If you want to get a head-start, and you don't already have a [GitHub Account Links to an external site.](#), please create one now!
 - I recommend using your personal e-mail (not your CR Student E-Mail) for GitHub or you'll lose access to your GitHub account after leaving CR.

Catalog Description

An intermediate-level course in object-oriented programming (OOP). Students will use object-oriented and event-driven concepts to design, implement, and test programs written using a modern programming language. The course includes concepts common to all programming languages and those specific to event-driven languages.

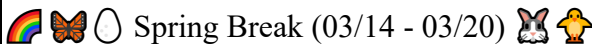
Course Student Learning Outcomes

Upon successful completion, the student will be able to:

- Design advanced object-oriented computer programs using a variety of techniques and tools.
- Create programs using basic logic and data structures.
- Test applications with sample data.

Course Calendar

Course Calendar

Week	Tuesday	Thursday
Week 1 (01/17 - 01/23) - Intro to Java, Class Diagrams, Classes, Objects, and, Packages	Lecture	Lab
Week 2 (01/24 - 01/30) - Inheritance, Interfaces, Composition, Polymorphism, Streams, and other useful things	Lecture	Lab
Week 3 (01/31 - 02/06) - Singleton Pattern	Lecture	Lab
Week 4 (02/07 - 02/13) - The Factory & Abstract Factory Patterns	Lecture	Lab
Week 5 (02/14 - 02/20) - The Strategy & Observer Patterns	Lecture	Lab
Week 6 (02/21 - 02/27) - Exam 1	Review Study Session / Lab Hours / Exam	Review Study Session / Lab Hours / Exam
Week 7 (02/28 - 03/06) - The Command Pattern	Lecture	Lab
Week 8 (03/07 - 03/13) - The State Pattern	Lecture	Lab
 Spring Break (03/14 - 03/20)		
Week 9 (03/21 - 03/27) - The Decorator Pattern	Lecture	Lab
Week 10 (03/28 - 04/03) - The Template Method Pattern	Lecture	Lab
Week 11 (04/04 - 04/10) - Exam 2	Review Study Session / Lab Hours / Exam	Review Study Session / Lab Hours / Exam
Week 12 (04/11 - 04/17) - The Adapter and Facade Patterns	Lecture	Lab
Week 13 (04/18 - 04/24) - The Iterator and Composite Patterns	Lecture	Lab
Week 14 (04/25 - 05/01) - Pipeline & Proxy Patterns	Lecture	Lab

Course Calendar

Week	Tuesday	Thursday
Week 15 (05/02 - 05/08) - Compound Patterns	Lecture	Lab
Week 16 (05/09 - 05/15) - Exam 3 - Due FRIDAY, 05/15 - BEFORE MIDNIGHT - NO MAKEUPS		Final Exam Schedule: Thursday 1:00pm to 3:00pm in HU-210

Evaluation & Grading Policy

Course Grading:

Exams(3) = 25%

Labs = 25%

Assignments = 25%

Sprint 1 = 5%

Sprint 2 = 5%

Sprint 3 = 5%

Sprint 4 = 5%

Sprint 5 = 5%

Grade Scale:

90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; Less than 60% = F

Participation:

This class is face-to-face course, but with lot's of group work and online content. It is VERY easy to fall behind in the online material or group requirements. It actually takes **MORE** effort to stay on schedule in a group course than it does in a traditional independent course. I highly recommend that you log on to Canvas at least 5 days a week to check announcements, group discussions, post labs and assignments, and take quizzes and exams. There are strict deadlines posted for Sprints, discussions, labs, assignments, quizzes, and exams that you must be aware of in order to avoid penalties.

There are no scheduled Zoom meetings. Previously recorded video tutorials and In-Person Lab and lecture hours will be provided to support your coursework.

Students are expected to:

1. Use AI **ONLY** when directed to do so
2. Do the assigned reading from the textbook
3. As needed, research topics using the Web and/or supplemental textbooks
4. As needed, download, install, and learn additional free software
5. Complete all assignments
6. Complete all labs
7. Take all quizzes
8. Take exams online
9. Participate in online discussion forums

Course Policies**Exams:**

The exams are administered online, and you typically have a time window to complete the exam once it is open. Failure to complete an exam during the defined time window will result in a zero on that exam. There are no makeup exams. Be sure to give yourself plenty of time for technology and logistical problems when taking the exam. Please do not test this policy, you will be very disappointed with the results.

Quizzes:

Quizzes are administered online weekly, and are typically due on Saturday of each week. Failure to complete a quiz by the posted due date will result in a zero on that quiz. There are no makeup quizzes. Be sure to give yourself plenty of time for technology and logistical problems when taking the quiz.

Lab Work:

54 hours of lab work is also required. Note: The lab work doubles the amount of hours you will be working as compared to a typical non-lab 3 unit course. Be sure you understand the time commitment needed. The lab work will consist of exercises and tutorials requiring the use of a computer to demonstrate your understanding of the material presented. In addition to the technical requirements, labs are graded on proper documentation, neatness and completeness. All required elements must be present for full credit on a Lab. Labs will be due as noted in each week's Module.

Assignments:

Your assignments will incorporate features that build on the knowledge and skills gained from

doing the lab work and require the use of a computer to demonstrate your understanding of the material presented. In addition to the technical requirements, assignments are graded on proper documentation, neatness, design and completeness. All required elements must be present for full credit on your assignments. Assignments will be due as noted in each week's Module and validated in review sessions.

Assignments and Labs (does NOT apply to Non-Sprint Discussions/Quizzes/Exams):

We all have "emergencies" that arise from time to time. In recognition of this reality, I have a "no questions asked" (NQA) policy. Here's how it works. At the beginning of the semester you will receive 3 NQA credits (virtually of-course). Each credit is worth one week. If something comes up, and you need to turn in an assignment or lab late, you can use an NQA credit and turn it in up to one week late. A late assignment or lab with the proper number of NQA credits indicated will be graded as if it were handed in on time, no questions asked!

A late assignment or lab without an NQA will receive a zero! Late credit cannot be applied towards discussions, quizzes or exams and will not be allowed for the last lab or final assignment due date.

Discussion Forum Participation:

Ten percent of your grade is based on Discussion Forum participation. There are 10 participation points available per week that are earned by posting answers to the week's discussion-forum topic and responding to classmates' postings. A maximum of 5 points can be earned by posting a quality answer to the week's discussion topic by the end of the day on Wednesday. An additional 5 points can be earned by posting at least **2 quality** responses to classmates' postings by the end of the day on Saturday. If you do not post your topic response by the end of the day on Wednesday, you forfeit 5 points. You can still earn 5 points for the week by responding to classmates' postings by the end of the day on Saturday. Failure to respond to classmates' postings by the end of the day on Saturday will result in forfeiture of 5 points for the week. Timely postings are essential to create a reasonable dialog on the week's discussion topic. You cannot makeup participation points, which means you cannot use NQA credits for discussion-forum postings. So make sure you post your response to the week's topic by Wednesday and respond to classmates' postings by Saturday.

Generally, a model posting will be one that shares what you have learned about the topic by providing at least one specific example from the assigned reading and/or video lecture material, and addresses any difficult/challenging concepts with specific descriptions. Replies to classmates will substantially comment on their examples and answer any questions they have. Read your peers' posts regularly to see their viewpoints. Sometimes it's surprising how many different ways a concept can be described.

In addition, you can spend some time researching the topics outside of your textbook. Use the Internet and other books to provide another perspective or a more detailed

explanation. Including a hyperlink to relevant Internet information gives others the opportunity to learn more too. **Remember to cite your references.**

Just as you would use a nice tone in the classroom, be sure to prepare thoughtful and friendly responses online. The forum discussions are an opportunity to help others with their understanding of the concepts covered. If you see a post where someone is struggling to understand (or is incorrect), try to help them out. Find something positive to say about their effort, and then add your comments. Try to illustrate your explanation, rather than referring them to your post. Be polite, supportive, and encouraging. The online learning environment should be helpful and enjoyable!

One final note - anyone that acts offensively online will be subject to removal from the class. This includes using insulting (or foul) language, or being demeaning in discussion forum posts.

Connection Issues:

Problems with your internet connection or your computer will NOT result in an extension of the due date for any deliverable (lab/quiz/exam, etc.).

Disqualification/Excessive Absence Policy:

You will automatically be disqualified (dropped from the roll) if you have not posted your Week 1 Introduction to the Discussion Forum AND do not complete Quiz1 and Lab 1 by their respective due dates. In addition, you will be dropped from the course if you are not participating at least four days a week, or failing the course due to a lack of participation resulting in missed quizzes, labs, assignments, discussions or exams.

Incomplete Grades:

I do not give incomplete! However, if your place of residence is carried away by a tsunami while completing your final exam, lab or assignment, I may reconsider. This means an incomplete may be granted in EXTREME circumstances. You must be receiving at least a C grade at the time of the tsunami 😊.

Prerequisites / Co-requisites / Recommended Preparation

CIS-1 and CIS-12 are the recommended preparations for this class, which means a fundamental understanding of how computers work and effective math skills. CIS-50 taken simultaneously, or before this course is also recommended.

Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, or bipolar disorder
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- Neurodevelopmental disorders such as a learning disability, intellectual disability, autism, acquired brain injury, or ADHD
- Vision, hearing, or mobility conditions

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the [LIGHT Center Links to an external site.](#), counseling and advising, alternate formats of course materials (e.g. audio books or E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Student Accessibility Support Services \(SASS\) Links to an external site.](#)

If you are unsure whether you qualify, please contact SASS for a consultation: SASS@redwoods.edu.

SASS office locations and phone numbers

Eureka campus

- Phone: 707-476-4280,
- Locations: Student Services building, first floor SS113

Del Norte campus

- Phone: 707-465-2353
- Location: Main building, near the Library

Klamath-Trinity campus

- 707-476-4280

Course Summary:

Course Summary

Date	Details	Due
Sat Nov 8, 2025	Assignment Exam 2	due by 11:59pm
Tue Jan 20, 2026	Discussion Topic *REQUIRED* Week 1 - Introduction	due by 11:59pm
Sat Jan 24, 2026	Assignment Lab 001 - Agile Project Planning	due by 11:59pm
	Discussion Topic Sprint Planning 01	due by 11:59pm
Thu Jan 29, 2026	Discussion Topic Daily Standup 1 Sprint 1	due by 11:59pm
Sat Jan 31, 2026	Assignment Lab 002 - GitHub Conflicts and Workflows	due by 11:59pm
Sun Feb 1, 2026	Assignment Developer Skills Lab	due by 11:59pm
Thu Feb 5, 2026	Discussion Topic Daily Standup 2 Sprint 1	due by 11:59pm
Sat Feb 7, 2026	Assignment Class - Singleton Project Lab	due by 11:59pm
	Assignment Individual - Sprint 01	due by 11:59pm
	Assignment Singleton Quiz	due by 11:59pm
Sun Feb 8, 2026	Assignment Individual - Threads and the Singleton	due by 11:59pm
Tue Feb 10, 2026	Discussion Topic Sprint Review 01	due by 11:59pm
Thu Feb 12, 2026	Discussion Topic Sprint Retrospective 01	due by 11:59pm
Sat Feb 14, 2026	Assignment Class - Factory Project Lab	due by 11:59pm
	Assignment Factory / Abstract Factory Quiz	due by 11:59pm
	Discussion Topic Sprint Planning 02	due by 11:59pm
Thu Feb 19, 2026	Discussion Topic Daily Standup 1 Sprint 2	due by 11:59pm
Sat Feb 21, 2026	Assignment Class - Observer Project Lab	due by 11:59pm

Course Summary

Date	Details	Due
	Assignment Observer Quiz	due by 11:59pm
	Assignment Team - Observer Interpretation	due by 11:59pm
Thu Feb 26, 2026	Discussion Topic Daily Standup 2 Sprint 2	due by 11:59pm
Sat Feb 28, 2026	Assignment Exam 1	due by 11:59pm
	Assignment Individual - Sprint 02	due by 11:59pm
Tue Mar 3, 2026	Discussion Topic Sprint Review 02	due by 11:59pm
Thu Mar 5, 2026	Discussion Topic Sprint Retrospective 02	due by 11:59pm
Sat Mar 7, 2026	Assignment Class - Command Project Lab	due by 11:59pm
	Assignment Command Quiz	due by 11:59pm
	Discussion Topic Sprint Planning 03	due by 11:59pm
	Assignment Team - Command Interpretation	due by 11:59pm
Thu Mar 12, 2026	Discussion Topic Daily Standup 1 Sprint 3	due by 11:59pm
Sat Mar 14, 2026	Assignment Class - State Project Lab	due by 11:59pm
	Assignment State Quiz	due by 11:59pm
	Assignment Team - Factory / Abstract Factory Interpretation	due by 11:59pm
	Assignment Team - State Interpretation	due by 11:59pm
Thu Mar 26, 2026	Discussion Topic Daily Standup 2 Sprint 3	due by 11:59pm
Sat Mar 28, 2026	Assignment Decorator Quiz	due by 11:59pm
	Assignment Individual - Sprint 03	due by 11:59pm

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Date	Details	Due
	Assignment Team - Decorator Interpretation	due by 11:59pm
	Assignment Team - Decorator Project Lab	due by 11:59pm
Tue Mar 31, 2026	Discussion Topic Sprint Review 03	due by 11:59pm
Thu Apr 2, 2026	Discussion Topic Sprint Retrospective 03	due by 11:59pm
Sat Apr 4, 2026	Assignment Quiz Template Pattern	due by 11:59pm
	Discussion Topic Sprint Planning 04	due by 11:59pm
	Assignment Team - Template Interpretation	due by 11:59pm
	Assignment Team - Template Lab	due by 11:59pm
Thu Apr 9, 2026	Discussion Topic Daily Standup 1 Sprint 4	due by 11:59pm
Thu Apr 16, 2026	Discussion Topic Daily Standup 2 Sprint 4	due by 11:59pm
Sat Apr 18, 2026	Assignment Individual - Sprint 04	due by 11:59pm
	Assignment Quiz Adapter & Facade	due by 11:59pm
	Assignment Team - Adapter OR Facade Interpretation	due by 11:59pm
	Assignment Team - Adapter/Facade Project Lab	due by 11:59pm
Tue Apr 21, 2026	Discussion Topic Sprint Review 04	due by 11:59pm
Thu Apr 23, 2026	Discussion Topic Sprint Retrospective 04	due by 11:59pm
Sat Apr 25, 2026	Assignment Iterator and Composite Quiz	due by 11:59pm
	Discussion Topic Sprint Planning 05	due by 11:59pm
	Assignment Team - Iterator OR Composite Interpretation	due by 11:59pm

Course Summary		
Date	Details	Due
	Assignment Team - Iterator/Composite Project Lab	due by 11:59pm
Thu Apr 30, 2026	Discussion Topic Daily Standup 1 Sprint 5	due by 11:59pm
Sat May 2, 2026	Page Uncle Sam's Plea	to do: 11:59pm
	Assignment Proxy Quiz	due by 11:59pm
	Assignment Team - Proxy Interpretation	due by 11:59pm
	Assignment Team - Proxy Pattern Project Lab	due by 11:59pm
Thu May 7, 2026	Discussion Topic Daily Standup 2 Sprint 5	due by 11:59pm
Sat May 9, 2026	Assignment Design Patterns	due by 11:59pm
	Assignment Individual - Sprint 05	due by 11:59pm
Fri May 15, 2026	Assignment Exam 3	due by 11:59pm
	Assignment Peer Review	due by 11:59pm
	Quiz Exam 1 - S2024	