
CS& 141: COMPUTER SCIENCE I (JAVA)

COURSE DETAILS

Instructor	Crystal Hess - chess@shoreline.edu I prefer messages to be sent through Canvas.
Office Hours	T/W/TH 9-10am, M/W 3-4pm, or by appt. Science Building, Office 2813
Class Hours	M/W 12:30pm – 2:50pm Computer Lab 1308

CS& 141 - Computer Science I (Java)

5 credits

This course provides an introduction to programming using the Java programming language. We will explore common computational problem-solving techniques useful to computer scientists, but also to anyone who has large data sets, repetitive processes or other needs for computation.

Due to the amount of material and quick pace for consumption, prior programming experience is expected.

PREREQUISITES

ENGL& 101 (may be taken concurrently) and MATH& 141 or MATH 111 with grades of 2.0 or better. CS 121 or ENGR 202 with a grade of 2.0 or better.

MAJOR STUDENT LEARNING OBJECTIVES

Students should be able to:

- use *pseudocode* to plan code
- identify, create, and use *variables, data types, methods, parameters, conditionals, definite and indefinite loops, files, arrays, classes and objects, and ArrayLists*
- break down problems into logical pieces using methods
- *test* and *debug* code

TEXT

- Building Java Programs: A Back to Basics Approach, 4th Edition by Stuart Reges and Marty Stepp
 - Available through the Bookstore or on Amazon: [Student Value Edition](#), [Regular Edition](#)
 - Book will likely also be used for CS 143
- Approximate Chapter Coverage:

Week 1	Chapter 1: Introduction to Java Chapter 2: Primitive Data and Definite Loops
Week 2	Chapter 3: Parameters and Objects
Week 3	Chapter 4: Conditional Execution
Week 4	Chapter 5: Program Logic and Indefinite Loops
Week 5	(Midterm)
Week 6	Chapter 6: File Processing
Week 7	Chapter 7: Arrays
Week 8	Chapter 8: Classes
Week 9	Chapter 9: Inheritance and Interfaces
Week 10	Chapter 10: ArrayLists
Week 11	(Final)

SOFTWARE

- *Java Development Kit (JDK)* - <http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- *JGrasp IDE* - <http://www.jgrasp.org/>

GRADING POLICY

Activity	Percentage
Learning Practice	30
Individual Homework (~8)	20
Midterm (1)	20
Final (1)	30

Decimal grading will be used in accordance with the following table.

%	Grade	%	Grade	%	Grade
≥95	4.0	79-	2.9	65	1.8
94	3.9	77-	2.8	64	1.7
93	3.8	75-	2.7	63-	1.6
92	3.7	73	2.6	61-	1.5
91	3.6	72	2.5	59-	1.4
90	3.5	71	2.4	57-	1.3
89-	3.4	70	2.3	55-	1.2
87-	3.3	69	2.2	53-	1.1
85-	3.2	68	2.1	51-	1.0
83-	3.1	67	2.0	49-	0.9
81-	3.0	66	1.9	<48	0.0

ACADEMIC INTEGRITY

Academic honesty and integrity is expected. Shoreline Community College has a strict policy on cheating and plagiarism. You are cheating if you copy, steal, borrow, consult, or use any means to obtain answers from classmates or unauthorized sources for any assignment inside or outside class. Any student found guilty of cheating and/or plagiarism will receive a zero for the assignment. If it happens a second time, you may fail the course.

PROGRAMMING HOMEWORK MUST BE COMPLETED INDIVIDUALLY

All code you submit must be your own work. You may discuss general ideas of how to approach an assignment, but never specific details about the code to write. Any help you receive from or provide to classmates should be limited and should never involve details of how to code a solution. It should also not be in front of a computer.

- You **may not** work as a partner with another student on an assignment.
- You **may not** show another student your solution to an assignment for any reason.
- You **may not** look at another's solution for any reason.
- You **may not** have another person "walk you through" an assignment, describe in detail how to solve it, or sit with you as you write it. You also may not provide such help to another student. This includes tutor and current or former students.
- You **may not** post your homework solution code online to ask others for help. This includes public message boards, forums, file sharing sites and services, or any other online system.

Please note that **both parties involved in a cheating case are treated equally**. That is, helping someone else cheat is just as bad as reading someone else's solution. There are many resources for students who are struggling, and the right thing to do in this situation is to point them to these resources.

HOW TO BE SUCCESSFUL IN THIS COURSE

- **Come to class:** Participating in class lectures and practice problems will give you structured time to absorb new concepts, practice them, and ask questions to the Instructor and your peers.
- **Ask for help early:** In programming, everything stacks, meaning what you learn today, you WILL use tomorrow. Therefore, if you start to fall behind, it is imperative that you ask for help as soon as possible.
- **Practice:** It is not enough in programming to just read about or listen to lectures about concepts. It is important to solve problems both in-class and on your own. You should work through practice problems (like on Practicelt) until you are able to solve them without the aid of another person.
- **Utilize the textbook, slides, and videos provided:** While lecture will cover most of the concepts, the textbook, slides, and videos provided will provide more detail and reference outside of class.

GETTING UNSTUCK

Getting stuck is part of the programming process. However, one of the most useful skills you may learn from this course is "how to get unstuck."

Here are some suggestions:

- **Make systematic changes.** Look carefully at the work you have just done. Try changing one thing and see what effect it has.
- **Talk to a rubber duck.** No really, this is actually [a thing](#). Sometimes if you take a moment to tell someone (even someone non-techie) what you're trying to do, you'll end up having an Ah-Ha moment of clarity!
- **Ask a classmate.** Try to share ideas about how to figure out the problem rather than telling your classmate the answer. You'll learn as much by helping others find their mistakes as you will by finding your own.
- **Take a break.** Sometimes you just need to take a break! Looking at code with a fresh set of eyes solves problems quicker than beating your head against the computer :)
- **Ask the Instructor.** I'm here to help you. It's literally my job.

ADDITIONAL INFORMATION

STUDENTS WITH DISABILITIES

Shoreline Community College is committed to providing educational programs without regard to disabling conditions as defined by Section 504 of the Rehabilitation Act of 1973. Reasonable accommodations will be made and no otherwise qualified individual with disabling conditions shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program, activity or service administered by the college.

For more information: <http://www.shoreline.edu/oss/students-with-disabilities/>

TUTORING SERVICES

Tutoring Services provides students with free one-on-one tutoring support for any Shoreline Community College classes. They also host drop-in learning centers, such as the Biology/Chemistry Learning Center, Business Technology & eLearning Center, Physics Learning Center, Conversation Groups, and more (schedules and availability vary). For more information and to apply for tutorial assistance or to apply to become a tutor, please visit our office in 4228 (Library), email pttutors@shoreline.edu, call 206-546-4776, or check out the webpage: www.shoreline.edu/tutoring.

The college also provides students with free online tutoring in a variety of courses through [the Western eTutoring Consortium](#)

COUNSELING CENTER

The Counseling Center provides free, confidential and professional counseling services, resources, and referral to support the academic and personal success, health, and well-being of our students and campus community.

Students often visit the Counseling Center to discuss a wide variety of topics: depression, anxiety, relationship concerns, and stress management; indecision about major or career path; and academic concerns such as failing grades, struggling with a subject, or managing a learning disability. The Center also supports students who may be feeling suicidal or in crisis.

- FOSS - 5245 | 206-546-4594
- www.shoreline.edu/counseling-center

Need support when they are not available? For 24/7 emergency counseling, referral, or assistance please contact:

- King County: 24-Hour Crisis Line | 866-427-4747
- Snohomish County: 24-Hour Crisis Line | 800-584-3578
- Live Chat: crisischat.org
- Crisis Text Line: Text 741741
- 911 (for immediate health-related emergency)