
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

CS121 - 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

CLASSROOM CONTRACT

You are expected to uphold the classroom contract as follows:

- **Be Prepared:** You are expected to complete all pre-work and homework before class starts so that you are ready to be engaged in conversations and activities.
- **Be Present:** You are expected to be in class, on time, and actively present in the learning process.
- **Participate:** You are expected to be an active contributor in class. This means both asking questions and helping others.
- **Create space for learning:** You are expected to create and cultivate a space where learning is conducive for all learners. This means that you participate in the class without dominating the learning space.

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)