

CIS-232-01 Advanced Principles of Programming

Spring 2023

Course Description

Advanced Principles of Programming continues object-oriented programming beyond CIS-132, Principles of Programming (the introductory level course). Topics covered include: inheritance, advanced file I/O, GUI applications, recursion, polymorphism and database applications. Prerequisite: CIS-132. Two hours of lecture and two hours laboratory assignments each week posted online. Three credits. Three billable hours.

Course Start and End Dates

Monday, 01/30/2023 to Friday, 05/19/2023 (Final exam due by)

Days and Time

Mondays and Wednesdays 12:30pm to 2:25pm

Room Location

Student Resource Center

Instructor

Justin Frock

Office Hours

Mondays and Wednesdays 11:30 am to 12:30 pm

Thursday: 11:00 am to 1:00pm

Office Location

M257C or via Microsoft Teams

Email

jfrock2@carrollcc.edu

Faculty will respond to messages from students within 48 hours.

Phone

Program Director (or Discipline Coordinator): Matt Day

Phone: 410-386-8022

Email: mday@carrollcc.edu

Division Chair: Robert Brown

Phone: 410-386-8224

Email: rbrown@carrollcc.edu

Division Administrative Specialist: Donna Kiple

Donna Kiple

Phone: 410-386-8226

Email: dkiple@carrollcc.edu

Required Materials

Textbook: Starting Out with Java: Early Objects (6th Edition) ISBN 978-0-13-446201-1

Software: IntelliJ IDEA Ultimate <https://www.jetbrains.com/idea/>

(Free license: register with your carrollcc.edu account!)

Software: Java SE Development Kit 8 (JDK)

<https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html>

Optional Materials

A second computer monitor (At home use).

Course Objectives

Upon successful completion of this course, students will be able to:

1. Use classes to format and print the local date and time. (PG2, PG4)
2. Encapsulate a class using access modifiers and overloaded constructors. (PG2, PG4)
3. Demonstrate polymorphism by implementing a java interface. (PG4)
4. Handle checked exceptions in a Java application. (PG5)
5. Create GUI applications. (PG4,PG5)
6. Create applications that use a database. (PG4,PG5)
7. Debug programs by fixing syntax and logical errors. (PG2,PG4)
8. Explain how a program works by going through the code line by line. (PG1, PG2). (GE1,GE2,PG2,PG6)

Program Goals

Upon successful completion of the program, students will be able to:

1. Communicate technical information to others verbally and in writing.
2. Apply technical reasoning to diagnose, troubleshoot, and resolve challenges and issues.
3. Demonstrate effective documentation and reporting skills as measured by industry defined technical documentation.
4. Plan and develop software programs for a variety of uses.

Course Schedule

Week	Course Materials	Assignment(s)
0	Preview Canvas; Syllabus; Schedule	---

1	Tutorial Videos	Assignment 1, Quiz 1
2	Chapter 9 - Inheritance	Assignment 2
3	Chapter 9 - Inheritance	Quiz 2
4	Chapter 9 - Inheritance	Assignment 3
5	Chapter 10 - Exceptions	Quiz 3
6	Chapter 11 - JavaFX: GUI Programing and Basic Controls	Assignment 4
7	Chapter 11 - JavaFX: GUI Programing and Basic Controls	Quiz 4
8	Chapter 12 - JavaFX: Advanced Controls	Spring Break
9	Chapter 12 - JavaFX: Advanced Controls	Assignment 5
10	Chapter 15 - Databases	Quiz 5
11	Chapter 15 - Databases	Assignment 6
12	None	Quiz 6
13	None	Assignment 7 & Quiz 7
14	None	Assignment 8
15	Review For Finals	Quiz 8, Final Project Presentations
Finals		

Assignment and Grade Values

Assignment	Points
Quizzes (8 @ 20 points each)	160
Assignments (8 @ 50 points each)	400
Final Group Project (1 @ 120 points)	120
Final Exam (1 @ 120 points)	120
Total	800

Course Grade Structure

720 -- 800 points A
696 -- 719 points B+
640 -- 695 points B

616 – 639 points	C+
560 – 615 points	C
536 – 559 points	D+
480 – 535 points	D
Below 480 points	F

Grading Policy

Quizzes (any late quiz will have a 10%-point reduction per each day late including weekends)

Quizzes will cover concepts, vocabulary, and code. They will predominantly be multiple choice, fill-in-the-blank, matching, and True/False in the construction of the questions however other formats may be used as well (for example – short answer). All quizzes will be completed in Canvas.

Students will be allowed to use their notes and their textbook during each quiz; however, students cannot use another person's help during a quiz.

Assignments (any late lab will have a 10%-point reduction per each day late including weekends)

Lab assignments will primarily be problems to solve using coding techniques from the current chapter and prior chapters (course is cumulative in nature), and are intended to be more intensive than the quizzes as students will be using higher order thinking skills to read and understand the problems, design a solution, code the solution, and execute relevant Java code to accomplish the stated task(s) in the problem(s). Students will be expected to comment extensively in their code on what they are doing and will be submitting code as a part of the assignment.

Final Group Project

It is important for everyone to effectively communicate with one another. The group project will consist of 2-3 students. Each student will be responsible for a different part of a project. It is important for programmers to effectively work within a team. There will be a list of project options to choose from. Your group will produce a Pseudocode and later produce the Final Program this part will be the same as the labs however you will be working in groups.

Final Exam

The final exam is cumulative and will consist of two parts: question/answer and code. Additional information about the final exam will be provided by the professor.

Extra Credit

Extra credit may be offered in this class at the discretion of the professor. If offered, details will be provided in class.

Make-Up Policy

If there are extenuating circumstances that prohibit an assignment from being submitted on time, the instructor must be contacted immediately. The situation will be addressed on a case-by-case basis.

College Email Policy

All communications between students and faculty will use official college email accounts. It is expected that students will check their college email at least once per day.

Attendance Policy

Regular attendance and class participation are necessary for you to successfully achieve the objectives in your courses. Occasionally students experience emergencies (in most cases considered excused absences) that prevent them from attending class. If you must miss a class, please provide as much notice as possible. You should email or call your instructor prior to the missed class. Your instructor may request an approved written excuse when you return. If you miss class due to one or more unexcused absences, your grade may be impacted, especially in classes that require class participation. Students who have more than the equivalent of one week of unexcused absences, as determined by the number of scheduled class meetings per week (e.g., if your class meets twice a week = two unexcused absences) may miss important work that cannot be made up. Please refer to information provided in each course syllabus pertaining to how your course grade will be calculated and the faculty timeline for providing feedback on assignments.

The College attendance policy: [College Attendance Policy](#)

Refund, Withdrawal, and Audit Policy

The refund period ends Monday, 02/06/2023 at 11:59pm in the Records office or 11:59 p.m. via Student Planning (some students must contact their advisor during business hours). This is also the last day to drop without a W grade. The last day to withdraw with a W grade or to audit a class is Wednesday, 02/27/2023 at 11:59 pm. All students must contact their advisor for assistance with a Withdraw or Audit.

A student wishing to withdraw from or audit some or all of their courses should understand that such withdrawal or audit is not effective until the student completes the withdrawal or audit process by emailing their advisor (Check Starfish or call 410-386-8435 for an appointment). Audit approval is at the discretion of the professor.

To qualify for a refund, students must officially drop a course.

The College refund dates: [Refund and Withdraw Policy and Dates](#)

Code of Integrity for Academic and Behavioral Standards

Carroll Community College has a [Code of Integrity for Academic and Behavioral Standards](#) to foster and promote a sense of respect and consideration of others and uphold academic honesty and social conduct (see the College Catalog).

Sometimes cheating can be unintentional. However, it still has consequences. You can empower yourself by learning how to avoid cheating.

The College has resources to help you. Seek help from your professors, the library, and/or the Academic Services.

All the following are forms of academic dishonesty that can reduce your opportunities to maximize your learning:

- Sharing course assignments or assessments outside of class unless authorized by your professor.
- Sharing course materials, exams, quiz questions, or solutions with current, future, or prospective students.
- Sharing and using sites such as Chegg, Course Hero, and other contract cheating websites or apps.
- Posting your work or the work of others on the Internet
- Posting excerpts from course exams.

Doing any of the above will be viewed as a violation of Academic Integrity. The consequences of cheating could result in an Academic Integrity Meeting and compromise your future goals.

Communicating Concerns about the Course

If a student has a concern about this class, the student should follow the steps below per the [Formal Complaint Process](#):

1. Contact your professor. See contact information on page 1 of this syllabus.
2. If the concern is not resolved by the professor, then the student should complete the [complaint form](#) and submit it to the professor's supervisor, Robert Brown, rbrown@carrollcc.edu or 410-386-8224.
3. If the concern is not resolved, then the student should contact the Division [Chair](#), Robert Brown, rbrown@carrollcc.edu or 410-386-8224.

Student Health and Wellness

Carroll Community College is here to help you manage personal challenges that may threaten your well-being.

College students often experience issues that may interfere with academic success, such as academic stress; sleep problems; juggling responsibilities; the need for housing, food, or transportation; life events; relationship concerns; or feelings of anxiety, hopelessness, or depression. If you or a friend is struggling, we strongly encourage you

to seek support. Helpful, effective, and confidential resources are available on campus, and most are free of charge.

- If you are struggling with this class, please check in during student hours or contact me by email at jfrock2@carrollcc.edu
- Check in with your academic advisor if you are struggling in multiple classes, unsure whether you are making the most of your time at Carroll Community College, or unsure what academic resources are available at Carroll.
- Access services by completing a 'Report A Student Concern' by raising your hand on Starfish or 'Student Concern & Incident Report Form'.

Visit <https://www.carrollcc.edu/Student-Care-And-Integrity> for additional information and resources.

- **The Student Care and Integrity office is providing 24/7, confidential, remote crisis services through the Student Assistance Program (SAP). Students can call 1-800-327-2251 and speak with an expert counselor or download the BHS APP, or visit <https://www.BHSONline.com> Username: CARROLLCC**

In the event I suspect you need additional support, I will express my concerns and the reasons for them, and remind you of resources that might be helpful to you. It is not my intention to know the details of what might be bothering you, but to let you know I am concerned and that help, if needed, is available.

Getting help is a smart and courageous thing to do -- for yourself *and* for those who care about you.

Academic Center

Click [here](#) to connect to our tutoring team. We are here to support you!

Additional Policies and Information

The following policies are detailed in the Learning Management System:

Inclement Weather

Disability Services

Title IX Compliance