

MONTGOMERY COLLEGE
Rockville Campus
Engineering, Physical and Computer Sciences Department
CMSC214 Advanced Java

Instructor Information

Name:
Mailbox Location:
Email:
Office Hours:

Office Location:
Office Phone:

Course Information

Semester:
Class starts:
Midterm Exam
Check MyMC class schedule for your Specific
Deadline to Drop without a grade W or to change
from audit to credit or from credit to audit

Course CRN:
Class ends:
Final Project:
Check MyMC class schedule for
your Specific Refund Deadlines

Course Description

Explores Java Application Program Interface (API) and covers the latest release of Java including input and output, multithreading, networking, database connectivity, security, and Java Foundation Classes. Covers topics such as lists, searching and sorting, sets, stacks, queues, trees and an introduction to analyses of algorithm time.

Prerequisites/Corequisites

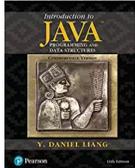
A grade of C or better in CMSC 201 or consent of department. *Three hours each week. Formerly CS 214.*

3 semester hours

Course Outcomes

#	Upon completion of the course, the student will be able to:
1.	Develop programs using exception handling features, networking concepts and multi-threading.
2.	Manage and process a large quantity of data using input and output.
3.	Develop programs using collections Application Programming Interface (API).
4.	Develop GUI-based applications such as a list, table or tree.
5.	Develop programs to connect to the database and to manipulate data using Java API.
6.	Develop applications using concepts such as array, list, sets, stacks, queues, trees and map.

Course Materials



Introduction to Java Programming, 11th Edition, Y. Daniel Liang,
Publisher: Prentice Hall

Companion Web Site: <http://www.cs.armstrong.edu/liang/intro11e/examplesource.html>

Textbook and other materials may be purchased through the bookstore

Grade Basis

Final Project	30%
Midterm	15%
Quizzes	10%
Projects	35%
Weekly Online Discussions	10%
Total:	100%

Grading Scale:

90 - 100%	A
80 - 89%	B
70 - 79%	C
60 - 69%	D
Below 60%	F

General Class Policies

- You are responsible for all work missed, and for meeting assignment due dates when absent. Please call or email your instructor if you are going to be late or absent.
- You are strongly encouraged to contact your instructor at home by phone or e-mail if you are having difficulties, or have any questions about assignments.
- Please include your name and the course information in the submitted assignments.
- Incomplete assignments receive no more than 50% of the grade.
- Assignments are considered incomplete, if they do not compile or they do not contain reasonable comments.
- There is always a means to submit your assignments on time. Be creative, be persistent, and keep your instructor informed!
- All assignments (Tests, Quizzes, Projects, and Discussions) must be turned in on or before the due dates to receive full credits.
- Missed Tests, Quizzes, Assignments, and Discussions: NO MAKEUPS without a doctor's excuse. If the Final Exam is not taken, the student will receive a grade of F for the course.
- No late work is accepted.

Course Topics

Topics
Chapter 12 Exception Handling and Text I\O
Chapter 13 Abstract Classes and Interfaces
Chapter 14 JavaFX Basics
Chapter 15 Event-Driven Programming and Animations
Chapter 16 JavaFX UI Controls and Multimedia
Chapter 17 Binary I/O
Chapter 19 Generics
Midterm Exam
Chapter 18 Recursion
Chapter 20 Lists, Stacks, Queues, and Priority Queues
Chapter 21 Sets and Maps
Chapter 23 Sorting
Chapter 24 Implementing Lists, Stacks, Queues, and priority Queues
Chapter 25 Binary Search Trees
Chapter 27 Hashing
Chapter 30 Multithreading and Parallel Programming
Chapter 31 Networking
Chapter 32 Java Database Programming
Chapter 35 Advanced Database Programming
Final Exam