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CISC 191 – Intermediate Java Programming (Fully online)

Summer 2020, CRN 31750, 4 Units

Instructor: Andrew Huang Email: ahuang@sdccd.edu *Please prefix email subject line with [CISC191]	**Office Hours:** Location: ConferZoom By Appointment Times: Thursdays 5-6pm

SUMMER 8-WEEK SESSION: JUNE 15, 2020 – AUGUST 8, 2020

Important Dates

Jun 15	Session Start
Jun 20	Refund Deadline of Enrollment Fees &/or Non-Resident Tuition
Jun 23	Deadline to Receive, Process & Pay for Add Codes & to Drop Classes With No “W” Recorded
Jun 30	Deadline to File A Petition for Pass/No Pass
Jul 3	Independence Day Holiday – No Classes!
Jul 17	Withdrawal Deadline - No Drops Accepted After This Date
Aug 8	Session End

Syllabus Subject To Change With Notice

This syllabus is subject to change with 48 hour notice, at the discretion of the instructor. Changes to the syllabus will be announced on Canvas. Please use the Syllabus link on the course Canvas page for the most current information.

Course Description

This course is an intermediate level study of the Java programming language. Topics include single and multidimensional arrays; objects and classes; object-oriented programming; inheritance and polymorphism; exception handling and text input/output (I/O); abstract classes and interfaces; graphical user interfaces (GUIs); event-driven programming and animations; UI controls and multimedia, binary I/O; recursion; multithreading and parallel programming; sorting; and binary search trees (BSTs). This course is intended for students majoring in computer and information sciences or anyone interested in learning more about the Java programming language.

Prerequisite

CISC 190 with a grade of "C" or better, or equivalent

Student Learning Objectives

- Employ design principles of object-oriented programming.
- Utilize the syntax and semantics of an object-oriented language in the development of software.
- Effectively use software development tools including libraries, compilers, editors, and debuggers.
- Construct programs utilizing single and multidimensional arrays; objects and classes; object-oriented programming; inheritance and polymorphism; exception handling and text I/O; abstract classes and interfaces; GUI; event-driven programming and animations; UI controls and multimedia, binary I/O; recursion; multithreading and parallel programming; sorting; and BSTs.

Required Textbooks

1. Eck, David J. (2019). Introduction to Programming Using Java, 8th Edition. Hobart and William Smith Colleges.
   Free PDF Download: http://math.hws.edu/eck/cs124/downloads/javanotes8-linked.pdf
   Textbook Website: http://math.hws.edu/javanotes/.
2. zyBooks (2020). Programming in Java with zyLabs. Register at https://learn.zybooks.com/ with code **SDMIRAMARCISC191HuangSummer2020**. The cost is $77.

Online Environment

This course uses the Canvas https://sdccd.instructure.com, a learning management system provided by San Diego Community College District. Canvas technical support is available to students 24/7/365. If you are having a technical problem with Canvas please reach out for help using the Helpdesk:

Helpdesk phone: 1-844-612-7421
Helpdesk website: https://www.sdccdonline.net/help

Assignments and Late Work

There is no process for "making up" course activities such as discussions, quizzes, exams, assignments, or projects, except in case of documented extreme hardship. Approval of any alternative activities is at the discretion of the instructor. Activities are set up online to not be accessible after their due date. Incomplete work will be rejected with no credit.

Attendance and Participation

It is the student's responsibility to drop all classes in which he/she is no longer attending or participating.
It is the instructor's discretion to withdraw a student after the add/drop deadline due to excessive absences.
Students who remain enrolled in a class beyond the published withdrawal deadline, as stated in the class schedule, will receive an evaluative letter grade in this class.

This is a 4-unit class, which generally translates to about 6 hours a week in class, and 2-3 hours per unit outside of class. This adds up to 14-18 hours per week for a 4-unit class. Actual student lab time will vary from student to student.

Weekly Discussions

Each of us have unique questions, experiences, and input to share. Please participate on the discussion boards, we will all gain more from an interactive class. In order to receive full points on each week's discussion:

1. Post your initial post with at least 150 words before midnight on the Friday the discussion is posted. (3 points)
2. Respond to at least 2 other students with at least 50 words before midnight on the Sunday the discussion is posted. (1 point each)

Incomplete Grade

Students seeking an "Incomplete" grade must consult with the instructor in person no later than the week prior to the last week of class. Incompletes will only be considered for unforeseeable emergency or other unforeseeable justifiable reasons at the end of the term, and only upon agreement of clear conditions for completing coursework.

Incompletes are rarely granted and only if the unforeseeable emergency or other unforeseeable justifiable reason occurs after the date for dropping the class. Students must be passing the class at the time of requesting an incomplete grade. Additionally, I will request students to sign a contract showing all work that needs to be completed and completion dates for missing work.

NOTE: Work, vacation, family concerns, class schedules, time management problems, and other normal issues students encounter will not qualify for incomplete grades.

Disability Accommodations

Students with disabilities who may need academic accommodations are encouraged to discuss their authorized accommodations from Disability Support Programs and Services (DSPS) with me early in the semester so that accommodations may be implemented as soon as possible. DSPS is located in K1-204 and the phone number is 619-388-7312.

Frequency And Timeliness Of Instructor-initiated Contact

Unless told otherwise, my goal is to respond to student questions with 48 business hours of receipt of a question or information request. My goal for homework grading is to have assignments graded within one week of the submission due date. You should receive frequent messages throughout the week via Canvas Announcements. If you are not receiving these, please check to make sure your notification settings and email address is correct, and if incorrect, notify me so that we can resolve with the help desk.

Library Resources

I strongly encourage you to take advantage of library resources. There is an open student computer lab in the library if you need to work on a computer. More information regarding the library may be found at their webpage: https://sdmiramar.edu/library/

Independent Learning Center (ILC)

The ILC is another open student computer lab for students enrolled in a credit course. The ILC is located in the LLRC on the first floor, room L-104. More information can be found at https://www.sdmiramar.edu/campus/ilc.

Academic Success Center (Tutoring)

The Academic Success Center (ASC) provides free tutoring on a variety of subjects as well as many other services. The ASC is in L-101, at the southwest corner of the Library/LRC building. For more information please call (619) 388-7852 or visit the website at https://www.sdmiramar.edu/campus/asc.

The Miramar Writing and English Language Lab (WELL), located in L-101, has tutors who work with students to provide individualized and guided feedback on assignments for English, ESOL and English Basic Skills classes. For more information, please visit the website at https://www.sdmiramar.edu/campus/well.

Plagiarism And Ethics Policy

Students are expected to be honest and ethical at all times in the pursuit of academic goals. Students who are found to be in violation of Administrative Procedure 3100.3 Honest Academic Conduct, will receive a grade of zero on the assignment, quiz, or exam in question and may be referred for disciplinary action in accordance with Administrative Procedure 3100.2, Student Disciplinary Procedures.

Each student agrees to the following statements of student behavior:

- Interact professionally, do not behave disruptively, and do only course-related activities in class.

- I agree that I, and only I, will be the one completing and submitting class materials (homework, quizzes, exams, written projects, etc.) in my name.
- I agree that I will not directly copy or plagiarize material from books, publications, the Internet, other students' work, or any other source. I am familiar with, and I agree not to violate, copyright laws.
- I agree that any projects submitted for this class have been prepared for this class only and have not been, and never will be, submitted for any other class at Miramar or any other school.
- I agree that, unless approved by the instructor, I will not share answers to homework assignments, quizzes, exams, or any other course material with fellow classmates.
- I acknowledge that failure to comply with any of the above statements may result in failure of an assignment, removal from the course, failure in the course, and disciplinary action deemed appropriate by the procedures set forth by the San Diego Community College District.

Student Code Of Conduct

Students are expected to adhere to the Student Code of Conduct at all times. The Student Code of Conduct can be found in Board of Trustees Policy, BP 3100, Student Rights, Responsibilities, Campus Safety and Administrative Due Process posted on the District website at http://www.sdccd.edu/public/district/policies/index.shtml.

Evaluation

Evaluation for this course will be based on multiple measures of performance including, but not limited to, discussions, labs, quizzes, exams, and projects. Final grades will not be rounded, they are calculated as follows:

>=90%	=	A
>=80% and < 90%	=	B
>=70% and < 80%	=	C
>=60% and < 70%	=	D
<60%	=	F

Graded Deliverables

The grading rubric for each deliverable can be found in their respective Canvas page.

Assignment	**Points**	**Subtotals**
Discussions (7)	5 points each	35
Labs (14)	5 points each	70
Quizzes (7)	10 points each	70
Final Project	Topic approval (5 points) Proposal (20 points) Progress report (20 points) Final project (60 points)	105
	Total	280

Tentative Class Schedule

Important Notes:

- **This schedule is subject to change based on course progress.**
- **Course weeks start on Monday and weekly assignments are due Sunday, before midnight. No late work will be accepted.**
- **Weekly Discussions: Your initial discussion posts must be submitted before Friday midnight of the week, and replies to at least two other students by Sunday midnight.**

Week	Textbook Readings (chapter.section)	Assignment(s)	Due Date
1	1.1 - 1.5: Java Architecture 4.6: Packages and Documentation 3.7: Exception Handling 6.6.4: Creating Jar Files 3.8: Arrays	Discussion 1 Lab 1.1 Lab 1.2 Quiz 1	June 21
2	5: Object-Oriented Programming 8: Best practices	Discussion 2 Lab 2.1 Lab 2.2 Quiz 2	June 28
3	9: Linked Data Structures and Recursion 7.4: Searching and Sorting	Discussion 3 Lab 3.1 Lab 3.2 Quiz 3 Final Project Topic Approval	July 5
4	10: Generics and Collections Independence Day! - July 3 NO CLASSES 11: I/O Streams	Discussion 4 Lab 4.1 Lab 4.2 Quiz 4 Final Project Proposal	July 12
5	12: Concurrency	Discussion 5 Lab 5.1 Lab 5.2 Quiz 5	July 19
6	11.4 - 11.5: Networking Read about your choice of embedded database	Discussion 6 Lab 6.1 Lab 6.2 Quiz 6 Final Project Progress Report	July 26
7	6: Event-driven programming 13: GUI Programming	Discussion 7 Lab 7.1 Lab 7.2 Quiz 7	Aug 2
8	Final Projects	Final Project Due	Aug 8

Final Projects

Have fun with this! While the goal of this project is to demonstrate your ability to code in Java, make a cool tool or library that you could use in the future. You are welcome to use 3rd party libraries, however, do not simply copy and paste code online, but make something novel. If you are using an open source code base, cite the reference clearly and document what features you have contributed or experimented with.

Please submit deliverables to Canvas, on the Assignments page. Each is due by Sunday midnight of the week listed below.

1. Decide on a project topic and get instructor approval (requests accepted starting week 1 but approval must be complete by week 3) - 5 points
2. Proposal (due week 4) - 20 points
    a. Title page
    b. Purpose and justification
    c. Materials required
    d. Investigation, development, or experimentation to be conducted
    e. Tasks, time estimates, and dependencies
3. Progress report (due week 6) - 20 points
    a. Title page
    b. List of tasks and their statuses
    c. Problems
    d. Pseudocode
    e. Simulation screenshots, photos, videos of working code
    f. Modifications to proposal
4. Presentation (due week 8) - 60 points
    a. Codebase (link to source repo or zip of structure)
    b. Make sure to put a comments header on each file stating the author and description
    c. Please leave any pseudocode or comments along with the code
    d. Project summary
    e. Methodology
    f. Live Demonstration or Videos/Screenshots
    g. Results
    h. Conclusions
    i. Recommendations
    j. References