UNIVERSITY OF GUAM
COLLEGE OF NATURAL & APPLIED SCIENCES

CS 280 Programming Lab Practicum

Fall 2023 Syllabus

Class Meeting Times

M, W 8:00 - 9:50 AM

Instructor

Elaine Cortez, M.A.T. Adjunct Instructor
Office Hour: By appointment, TTh 8:00 - 9:50 AM; MW 10:00 - 11:00 AM
Email: corteze@triton.uog.edu

Course Description

This course is the follow-up the first programming course in Java. The course covers additional topics in Java and then the emphasis shifts to object-oriented analysis and design. The topics includes the OOP concepts, I/O streams, exception handling, object-oriented analysis and design, UML, interface, data abstraction, inheritance, interfaces.

Prerequisites

CS 202 Programming II

Skills & Background Required or Expected

Students are expected to be familiar with the following in Java:

- Variables and expressions
- Methods (also known as functions or procedures)
- Decision structures (such as if-statements and switch-statements)
- Iteration structures (for-loops and while-loops)

Required Textbook, Equipment, and/or Readings

- Stuart Reges, Marty Stepp, Building Java Programs: Back to Basic Approach, Pearson(5th ed)
- Account for Practice-it (Java Programming problems) site (Free)

Course Format

Lecture, problem solving & presentation, demonstration and hands-on exercises, discussion for programming projects.

Student Workload

Spend an average of at least 2 hours studying for every class, 1-2 hours for each lab assignment, and 2 – 3 weeks for each programming project.

Grading System/Evaluation Methodologies

Course Requirements	Percent
Tests	**20%**
Quizzes	**10%**
Lab Assignments/In-Class Work	**20%**
Programming Projects	**30%**
Final Exam	**20%**
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Total	**100%**

Tests

There will be 3 content knowledge tests. The Safe Exam Browser tool will be used for ALL tests. They will be closed notes/closed Internet tests.

Quizzes

There will be occasional quizzes based on the lab assignments and in-class work. Open notes/closed Internet quizzes. These will be paper quizzes. Any notes must be on paper (handwritten or printed). No use of digital devices allowed.

Lab Assignments/In-Class Work

The Hands-on exercise work given from the ***Practice-it*** will be collected usually at the end of the class and graded. Lab assignments usually require revision/extension of in-class work and will be collected at the end of the day or next day.

Programming Projects

4-5 programming projects will be given. At least one of them will be team project.

Final Exam

Comprehensive. Consist up of two parts : part 1 – content knowledge, part 2 - programming. The Safe Exam Browser tool will be used for Final. It will be closed notes/closed Internet. You will be given a Java programming reference sheet that you can refer to for the exam.

Make-Up Work

Missed quizzes and in-class work CANNOT be made up. Missed works due to an excused absence will be waived up to **two**. **Missed works due to an unexcused absence will get 0.** Missed test due to an excused absence can be made up by providing a supporting document for being excused from the class. Also, student can get an extension for an assignment that is due during the excused absence.

Contact the professor the first day when student returns to class to schedule a make-up test or to get an extension of an assignment due. No make-up test will be administered after the test is open for review.

Attendance

Regular and punctual class attendance is expected of all students. Responsibility for class attendance rests with the individual student. A student must accept the consequences of failure to attend.

An instructor will drop a student from the course for excessive absences. "Excessive absences" means 3 consecutive absences without notice or failure to attend 80% of scheduled class meetings, i.e. missing more than 6 classes that include excused absence. A student missed more than 6 classes will be dropped from a course with a failing grade F.A student so dropped may appeal through the college's Due Process.

Note: Student who arrives after the instructor starts a class will be considered as tardy. 3 tardy will be counted as 1 unexcused absence.

A course for which a student registers and does not attend and is not officially dropped will be recorded as an "F" grade on the student's record.

All students (including those who enroll in classes late) are responsible for the work covered and assigned from the first meeting of a class.

Course Topic/Exam Schedule

Week	Topic	Readings/Quiz & Test Dates
1 – 2	Java Basics Review	Chapters 1 – 7 Review, Chapter 8
2 – 3	Chapter 8: Classes | Project 1	Chapter 9 | Quiz 1
4 – 5	Chapter 9: Inheritance and Interface	Chapter 10 | Quiz 2 | Test 1 (5th week)
6 – 7	Chapter 10: ArrayLists | Projects 2 & 3	Chapter 11 | Quiz 3
8	Chapter 11: Java Collections Framework	Chapter 15 | Quiz 4
9	Chapter 15: Implementing a Collection	Quiz 5
10	Project 4	Chapter 16 | Test 2 (10th week)
11	Chapter 16: Linked Lists	Chapter 12 | Quiz 6
12	Chapter 12: Recursion	Chapter 13 | Quiz 7
13	Chapter 13: Searching and Sorting	Quiz 8
14 – 15	Team Project Work Days	Test 3 (14th week)
16	Team Project Presentations	

Final Exam 8:00 AM Monday

CS 280 Student Learning Outcomes (SLOs) Mapping to PLO/ILO

CS 280 Student Learning Outcomes (SLO)	Program Learning Outcomes (PLO)	Institutional Learning Outcomes (ILO)	Activities/Assessments
2	1	1, 2, 5	Programming Project
3, 5, 6, 7, 8, 9	2	1, 2, 5	Programming Project
1, 4, 11	3	1, 3, 4, 6	Programming Project (Documentation & Presentation)
	4	1, 4, 5, 7	Programming Project
10	5	1, 2, 3, 4, 5, 7	Programming Project (Team)
5, 6	6	1, 2, 3, 5, 7	Programming Project, Test

*** Refer to PLOs and ILOs described hereafter.**

CS 280 Student Learning Outcomes (SLOs)

Upon the completion of the course successfully, Students will be able to:

- **SLO-1** Describe and explain what abstract data types (ADT) and different ADTs that include stacks, queues, lists, trees, hash tables, sets, and maps.
- **SLO-2** Select and apply proper abstract data types and algorithms to solve problems.
- **SLO-3** Implement those abstract data types in different ways: contiguous (array) and linked representations (linked list).
- **SLO-4** Describe and explain Object-Oriented concepts of encapsulation, data hiding, data abstraction, class reuse via inheritance, polymorphism and generic collections, error recovery through exception handling, abstract data types with classes.
- **SLO-5** Implementing the object-oriented concepts to develop software to solve problem.
- **SLO-6** Use a divide-and-conquer algorithm to solve an appropriate problem.
- **SLO-7** Implement basic numerical algorithms, such as computing average, finding the min/max/mode of a list of numbers, finding GCD, etc.
- **SLO-8** Implement simple search algorithms and explain the differences.
- **SLO-9** Implementing sorting algorithms
- **SLO-10** Be able to behave and function as a responsible member in a team project.
- **SLO-11** Document program/project properly

CS Program Learning Outcomes (PLOs)

- **PLO-1** Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- **PLO-2** Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- **PLO-3** Communicate effectively in a variety of professional contexts.
- **PLO-4** Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- **PLO-5** Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- **PLO-6** Apply computer science theory and software development fundamentals to produce computing-based solutions.

UOG Institutional Student Learning Outcomes (ILOs)

- **ILO-1** Critical thinking and problem solving
- **ILO-2** Mastery of quantitative analysis
- **ILO-3** Effective oral and written communication
- **ILO-4** Understanding and appreciation of culturally diverse people, ideas and values a democratic context.
- **ILO-5** Responsible use of knowledge, natural resources, and technology
- **ILO-6** An appreciation of the arts and sciences
- **ILO-7** An interest in personal development and lifelong learning

Academic Dishonesty

Academic Integrity is about performing in your role as student in ways that are honest, trustworthy, respectful, responsible, and fair (see www.academicintegrity.org for more information). As a student, you will complete your academic assignments in the manner expected by the instructor. Academic dishonesty, including but not limited to cheating and plagiarism may result in suspension or expulsion from the University. Refer to the UOG Student Handbook and Code of Conduct for more information.

Professional and ethical conduct is expected at all times. Unethical conduct includes any form of cheating, including plagiarism. The term **"cheating"** includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations, e.g., looking at other students' answers, using crib notes (including electronic), getting information from another person via any kind of communication; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff. If you need to use an electronic translator, you must discuss this with me in advance. All assignments and tests must be your own work. Answers you write on the tests must come only from in your head or the information supplied in the test papers; anything else is cheating. Any evidence of cheating will result in a "0" for that assignments and/or exam or possibly an "F" for the entire course – final decision to be determined by the course instructor.

Academic Dishonesty (continued)

Note: For programming related assignment, cheating includes both copying and sharing codes. When instructor finds identical works, for the first incident the grade will be divided by the number of the identical works and repeated incident will result in failing the course.

Withdrawal from Class

[UOG Student Handbook, p.33-34]

Students may withdraw from a class or classes during the first week of instruction of a regular semester and the first two days of a summer session without anything being recorded on their transcripts. From the second through the eighth week of instruction of a regular semester and from the third day of classes through the third week of a summer term, students may withdraw by using the Withdrawal feature in their WebAdvisor account.

Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights for students, parents and school officials can be viewed at: http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html

UOG Disabilities Policy

For individuals covered under the ADA (Americans with Disabilities Act), if you are a ***student*** with a disability requiring academic accommodation(s), please contact the Disability Support Services Office to discuss your confidential request. A Faculty Notification letter from the Disability Support Services counselor will be provided to me. To register for academic accommodations, please contact or visit Sallie S. Sablan, DSS counselor in the School of Education, office 110, disabilitysupport@triton.uog.edu or telephone/TDD 671-735-2460.

CollegeNET Course Evaluations

Course evaluations will be available for students to complete during the last week of the semester. Fanuchånan 2023 course evaluations will be available from 11/20/23 – 12/07/23. You can access the course evaluations by clicking on "CollegeNET Course Evaluations" in the drop-down log in menu on the University of Guam's website (www.uog.edu). You will need to know your WebAdvisor username. Completion of course evaluations may be substituted as extra-credit towards final exam per instructor's discretion and upon proof of completion.

Tabacco-Free/Smoke-Free/Vaping-Free Campus

UOG is a tobacco-free/smoke-free, vaping/e-cigarette free campus. Thank you for not using tobacco products on campus, and for helping make UOG a healthy learning and living environment. For more information visit: http://www.uog.edu/smoke-free-uog

Disclaimer

This syllabus is subject to change.