CSE 232 Introduction to Programming II

Credits: 3

Description: Continuation of object-centered design and implementation in C++. Building programs from modules. Data abstraction and classes to implement abstract data types. Static and dynamic memory allocation. Data structure implementation and algorithm efficiency. Lists, tables, stacks, and queues. Templates and generic programming.

Time and location:
- Lecture: Mon, Weds, Thurs 3:00 pm - 4:50 pm, 1145 Engineering Building
- Lab (Section 1): Tues, Fri 12:40 pm - 2:30 pm, 3345 Engineering Building
- Lab (Section 3): Tues, Fri 3:00 pm - 4:50 pm, 3345 Engineering Building

Instructor: James Daly, email: dalyjame@msu.edu
- Office: 3110 Engineering Building
- Office Hours: Mon, Weds, Thurs 1:30 - 2:30 pm

TAs:
- Atra Akandeh, email: akandeha4@msu.edu
- Doug Kirkpatrick, email: kirkpa48@msu.edu


Class notes: The class notes will be posted on D2L.

Piazza: This section will use Piazza for discussion. You should receive an invite during the first week of class. Piazza is a tool for students to post homework, project, and class material questions only. Piazza neither can be used as a venting tool to express frustrations toward the class material or topics, nor to be used as a tool to change the students’ perception towards the TAs or instructor of the class. Those who do not follow this simple etiquette will be blocked from piazza for the rest of the semester and reported to the Dean of Students.

Mimir: Mimir is a required element for the class. Much of your programming work will be turned in via Mimir. Lab 00 sets up registering for Mimir. Mimir gives you a two week grace period before you are required to pay $25 for the semester. Mimir registration is required for the course.

Important Dates:
- Open add ends: May 18
- Last day to drop with refund: May 24
- Last day to drop with no grade reported: June 6

Graded work:
1. 3 Examinations (50%)
2. Projects (45%)
3. Pre-lab exercises (5%)

Grading: The final grades will be assigned based on the following scale. The instructor reserves the right to make changes to the grading scale. Specifically, the score required to obtain each mark may be lowered.

- 4.0 90%
- 3.5 85%
- 3.0 80%
- 2.5 75%
- 2.0 70%
- 1.5 65%
- 1.0 60%

Mastery: To be eligible for a non-zero grade in this course, the student must do all of the following:
1. Earn at least 50% of the total points for the projects
2. Earn at least 50% of the total points for the examinations

Students who do not complete all of the mastery components will receive a failing grade.

**Pre-lab exercises:** Prelabs will be made available ahead of time and are due to be turned in (on D2L) by midnight the day before. There are no makeups for Prelabs. The prelabs are designed so that you can try to solve any question as many times as you like without restriction.

**Labs:** The computing laboratory for CSE 232 is located in 3345 Engineering Building. Attendance at scheduled laboratory sessions is mandatory. Missing more than two lab sessions will reduce your final grade (see below).

The two-hour scheduled lab sessions are coordinated by Teaching Assistants and are used to complete laboratory exercises and to consult with Teaching Assistants about other aspects of the course, such as projects.

The lab exercises are designed to be learning tools that complement the lectures and assigned readings. They are designed to be collaborative experiences where students work with each other.

Some things to note:

- Physical attendance will be taken by the TA. The TA will record attendance on D2L.
- Each lab will have associated with it some Mimir tests to gauge how well you do.
- You must do the work **during the lab.** The intent is for the lab to be collaborative and a place to ask questions. You can and should work with your classmates to solve your lab problem. You cannot come to lab with the lab completed (by the tests on Mimir) and get credit for attendance.
- Students are expected to make a “good faith effort” to get marked as present during the lab. You don’t have to pass all the tests to be marked present, but if you sit and let others do all the work, play on your phone, etc., you will not be marked present for the lab.
- Students who are habitually late will not receive credit when they arrive late to lab.

You can miss two labs for any reason; it doesn’t need to be explained to me or anyone else. Every lab absence beyond two will reduce your final grade by a half mark (0.5), so use your absences wisely. There is no makeup for a missed lab. It is up to you when to use our absences.

**Projects:** There will be about 7 programming projects. The projects will include the design and implementations of solutions using C++. Project solutions are submitted electronically via Mimir. Only the most recent submission will be graded. Submissions should be checked for correctness. The final arbiter is how it compiles and runs on Mimir. **If your code does not compile on Mimir, you will receive a zero for that project.**

Projects are to be done individually. Discussing problem-solving strategies with other students is encouraged, but as soon as any discussion turns to a particular implementation, that must be done on your own. Each project solution is electronically compared to all other solutions to identify similar solutions. **The penalty for plagiarism on a project is a mark of 0 on the project and a further half mark (0.5) is subtracted from your final grade.** Repeat offenses will result in your failure of the course and recommendation for your dismissal from the program. Additional penalties are at the discretion of the course instructor.

**Under no circumstances should you share a project solution with another student.** Simply showing your solution to another student may cause you to receive a zero score; that student may copy parts of it or pass it along to someone else who copies it.

**Policy about late work:** The submission deadline will be specified for each project. In general, projects will be due at 11:59 PM on Mondays. Projects received one day late will be graded with a 50% grade deduction. After one day, no credit will be given.

In the case of a documented crisis, such as an illness, the student should submit an official document to arrange for alternate grading. Advance notification is required for late submission unless this is impossible.

**Exams:** There will be three exams: two mid-terms and a cumulative final. You are allowed a single sheet of notes on Letter paper or smaller. You may write on all six faces of the notes sheet. You may also bring a paper dictionary.

- Midterm Exam 1: Thursday, May 31 - regular class time
• Midterm Exam 2: Thursday, June 14 - regular class time

• Final Exam: Thursday, June 28 - regular class time All issues related to the final examination will follow the policies and schedule of the University: MSU Final Exam Schedule.

**Grading Policy:** Once grades are posted on D2L, you will have one week to raise any concerns about your grade on that particular assignment. After one week of posting grades, no regrading requests will be accepted.

**Other Policies:** Any extenuating circumstances that impact your participation in the course should be discussed with your instructor as soon as those circumstances are known (such as absences due to illness, religious observances, or other required school activities).

**Academic Integrity:** Article 2.3.3 of the Academic Freedom Report states: The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards. In addition, CSE adheres to the policies on academic honesty specified in General Student Regulation 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site.)

**Spartan Code of Honor:** “As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.”

**Distribution and Commercialization:** MSU prohibits students from commercializing their notes of lectures and class materials without written consent of the instructor. You are also prohibited from distributing course materials.

**Changes:** This syllabus is subject to change. The changes will be announced in class and then reflected in this document.

**Acknowledgments:** Parts of this syllabus, the lectures, and assignments are based on works from the MSU CSE faculty.