CSC 1350: Introduction to Computer Science I for Majors - Spring 2023

Course Info

Instructor: Lauren Pace
Email: lpace9@lsu.edu, I will only answer emails sent from a lsu email address.
Office: PFT 2341, this is the TA lab and is not guaranteed to be empty. If you need to meet to discuss something personal or sensitive let me know in the appointment field and I can reserve a room for us to meet in.
Office Hours: By appointment: To schedule office hours click here
Class Time: 10:30 - 11:20, Tuesday/Thursday
Lab Time: 4:30 - 7:20, Tuesday
Lecture Classroom: PFT 1206
Lab Classroom: TBD

Course Description

Fundamentals of algorithm development, program design and structured programming using an object-oriented language.

Course Summary

Prerequisites:

1. Credit or registration in MATH 1022, MATH 1023, MATH 1550, MATH 1551, or MATH 1552.
2. Credit will not be given for both this course and CSC 1250 or CSC 1253.

Course Layout

Lectures

Course lectures are 80 minutes. Attendance won't be taken but it is recommended that you show up to every class. Classes will not be recorded, but the slides and any code shown will be posted on Moodle after each class.

Labs

Labs are three hour longs, but it is not required that you stay this entire time if you finish early. Attendance

is required and attendance will be taken in the first thirty minutes of the lab period.

Exams

There will be two, 80-minute exams, and a two-hour comprehensive final exam. The first two exams will be held during class time. The final exam will be held at the date/time established by the LSU final exam schedule. Exam reviews will be held during the class immediately preceding the exam date. Arrangements for a make-up test must be made PRIOR to the exam. The instructor will be following LSU policy PS-22 with regards to valid reasons for missing an exam.

Course Schedule and Important Dates

Date	
Tu Jan 17	**Class begins, No Lab**
W Jan 25	**Final date for dropping courses without receiving a grade of a "W" (4:30 PM)**
Th Feb 16	**Test 1**
Tu Feb 21	**Mardi Gras Holiday**
Fr Mar 10	**Midterm Grades Due**
Tu Mar 14	**Spring Break**
Th Mar 16	**Spring Break**
Th Mar 30	**Test 2**
Th Apr 6	**Last Day to Drop Classes (4:30 PM Deadline)**
Sa May 6	**Last Day of Classes**
Tu May 11	**Final Exam 10:00 AM - 12:00 PM**

Grading

Grade Breakdown

Programming Assignments (labs and take home program(s)): 30%
Lab Attendance: 5%
Zybook Questions/Programming Problems and quizzes: 15%
Test 1: 15%
Test 2: 15%
Final: 20%

Grading Policy

General Things:

- Intermediate grades or individual assignments *might* be curved based on grade distribution.
- Final grades will not be curved.
- Statistics about grades will be provided periodically so you will always know your standing in the class.
- Due dates are strict and all graded work must be submitted on time. Do not wait until the last minute to submit assignments in case you have technical problems.
- Missed Assignment/Exams: A grade of 0 is awarded for missed assignment/exam in the absence of a valid excuse, as determined by the instructor. In the unusual circumstance that you must miss an assignment or exam due to medical reasons or other unforeseen emergency, you need to notify the instructor as soon as possible and provide sufficient documentation to verify the claim. The instructor will be following LSU policy PS-22 with regards to valid reasons for missing an exam. If the instructor deems that the excuse is valid and sufficiently documented, the instructor will determine how the missed work will be made up, depending on the circumstance.
- If you have a PS-22 excuse and cannot attend lab in person, TA lab support is only available via Zoom if prior arrangements have been made with the instructor. A documented valid excuse for not attending lab in-person is required for approval.
- Grading disputes for exams and written assignments must be brought up within seven days of receiving a grade on Moodle. To dispute a grade email the instructor with the following info:
    - Name
    - Assignment
    - List of the items that need to be corrected along with a concise reason as to why the grade change is needed.
    - Attach original copy of programming assignment.

Programming Assignments:

- **Always save a copy of your original submitted program to either a cloud drive or personal flash drive.**
- Gradescope will be used to autograde programming assignment. Programs will be testing against a variety of input/output test cases and your program must match the exact output.
- Programming assignments cannot be submitted late without a valid PS-22 excuse.
- A program that does not compile will not be graded.

- Always submit something. If you are unable to finish, get it to at least compile and submit what you can, even if this means commenting out code.
- A program should mostly be correct and terminate cleanly.
- Code style should be reasonably clean and organized.
- Be liberal with comments to explain your code.
- Grading disputes on programs must be addressed within seven days of the program's closing date. After seven days your program grade is final.
- You will only receive credit for the test cases your program passes. Under no circumstance will failing test cases will be overridden to provide more points on a programming assignment.
- You can test your program against the test cases as many times as you would like until the deadline.

Grading Scale

This class will be on a 12-point grading scale.

Grade	Score Range
A+	96-100
A	92-95.99
A-	88-91.99
B+	84-87.99
B	80-83.99
B-	76-79.99
C+	72-75.99
C	68-71.99
C-	64-67.99
D+	60-63.99
D	56-59.99
D-	52-55.99
F	<52

Required Textbook

To create a zyBook account:

1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code: LSUCSC1350Spring2023
3. Subscribe

Reading assignments and associated participation exercises will be assigned in the Zybook online platform. These will be due dates posted in Zybook for the exercises and challenge problems.

Course Topics

- Hardware and Compiler: different types of operating systems; parts of a computer (memory, CPU, I/O); binary representation of integers
- Application versus systems software; types of programming languages and terms
- Compilation errors, runtime errors, & logic errors
- Algorithm development; flowcharts; structured programming principles and construction; writing algorithms using pseudocode; testing
- Code debugging by creating code trace table; programming style guidelines writing "self-documenting" code
- Variables, expressions (arithmetic, Boolean, literals), assignment, statements, precedence, left-to-right association, data types
- Predefined Java Math class
- Interactive input/output using good user prompt/feedback
- keyboard input and monitor output; formatting output
- Branching statements: if; if/else; switch (optional)
- Repetition structures (while, do-while, for): counter-control loops (incremental and decremental); data control loops including break/continue control; nested loops; random number generators
- Modular design: algorithm refinement; top-down design; parameter passing and return statements with functions/methods; program testing
- Single dimensional and 2-dimensional arrays; the enhanced for loop
- List item Introduction to user-defined classes and objects
- Sorting of arrays: bubble sort
- Searching: unordered search; ordered linear search

Academic Integrity

Any kind of plagiarism will not be tolerated and will be officially reported. Any solution to a problem, whether it be written or code, should be the intelligent creation of an individual. With that in mind, it is

important to determine what plagiarism is or is not. This does not mean that you cannot discuss problems with your classmates and get perspectives outside of your own, which is often a net positive for everyone involved. Verbal discussion of material and practicing problems with your peers will be incredibly important to mastering a subject. Exams will be the only time you are not allowed any communication with classmates.

Students are required to abide by the LSU Code of Student Conduct Handbook. “LSU is an interactive community in which Students, faculty, and staff together strive to pursue truth, advance learning, and uphold the highest standards of performance in an academic, social, and social media environments” from LSU Code of Student Conduct. It is assumed that all students enrolled in this course have read the Code of Student Conduct – specifically section 10.1 (Academic Misconduct).

All students, regardless of level of guilt, will be reviewed by SAA (Student Advocacy and Accountability) in the event that an academic misconduct violation is detected.

- This is particularly important for those of you who “share” your homework with others. Many times this is done with the best of intentions to help a classmate, but the classmate may copy your solution and present the work as their own. The “sharer”, in the eyes of the university, is just as guilty as the copier.
- Keep your work safe. Never leave your homework with other students or send your solution to other students.
- If you share your program with a classmate and they submit your code you will both be held accountable for plagiarism.

Programming Assignments:

- You can have discussions, draw out ideas, and even write pseudo code together for solving problems.
- If a classmate is having trouble with a programming assignment and you have a working solution, you should not show your code to them.
- If you are struggling and ask a fellow classmate for help who has finished the program, you can show them your non-working code and open a discussion as to what is wrong.
- In no case should someone ever type code for you, including upperclassmen, TAs, and tutors you ask for help.
- Resources you find online are fine if you use one or two lines for something simple, but you cannot blindly copy a significant portion of an assignment. If you ever question how much code you have copied you can add the link in a commented section above the code.
- The use of any artificial intelligence systems on an assignment is expressly prohibited. Use of these systems constitutes plagiarism of the sources that a machine learning system is trained upon.

Other Things

Special Accommodation:

Students who have a disability that require accommodation(s) should make an appointment with the Office of Disability Services (Phone (225) 578-5919 or TDD: (225) 579-2600) to discuss their specific needs and present a letter from the ODS informing the instructor of their needs. All such matters, by University regulations, are strictly confidential.

Student Code of Conduct

As an LSU student, you are obligated to abide by the LSU Code of Student Conduct, which can be found here.