

Middle Tennessee State University
CSCI 2170: Computer Science II

- 1. Instructor** **Dr. Cen Li**
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Office Hours: Monday, Wednesday: 9:30 – 10:00 am, 2:30 – 4:00 pm
Tuesday, Friday: by appointment only

2. Course Description:

Prerequisites: CSCI 1170 (grade C or above) or equivalent

Objectives of course: To continue to develop effective software engineering habits while improving programming and problem solving skills. Learn abstraction, design, implementation, testing, and object-oriented programming using C++.

Course topics: recursion, record, pointer, linked list, stack, queue, tree, sorting and searching, and software engineering principles.

3. Learning Outcomes:

Upon successful completion of this course, a student will be able to:

- Write object-oriented programs using abstract data structures and data encapsulation
- Design and implement simple structures such as Lists, Stacks, Queues, and Trees as class (including search, insert, delete, and traverse elements)
- Produce effective and efficient programs to solve simple practical problems by choosing the most appropriate data structures, and then use appropriate design, debugging, and testing techniques
- Use “Big-O” analysis to critique algorithms, especially operations on simple data structures
- Construct & implement recursive solutions to solve problems
- Recognize the need for, and can program in a consistent and well accepted coding style

4. Course Materials:

- *DATA ABSTRACTION AND PROBLEM SOLVING WITH C++* (5th EDITION), by CARRANO, HELMAN, AND VEROFF

5. Methods of Instruction:

- **Homework:** homework will be assigned throughout the semester. Students will be randomly selected to put their solution on the board at the beginning of the class when homework is due, and their solution will be graded. It is guaranteed that each student will be selected at least twice in the semester.
- **Tests:** Four tests will be given during the lecture periods. Tests are 100 points each. All tests will contain questions related to lecture material, assigned textbook material, homework assignments, quizzes, closed labs, and open labs. The final exam is comprehensive.
- **Closed labs:**

Section 002:

Mon and Wed: 11:25am-12:25 pm
Lab Assistant: Ms. Suchetta Pattanayak
Office: KOM 453
Email: sm4c@mtmail.mtsu.edu
Office phone: 904-8321

Section 003:

Mon and Wed: 5:55 – 6:55 pm
Lab Assistant: Ms. Sara Bell Wilson
Office: KOM 453
Email: sdb3a@mtmail.mtsu.edu
Office phone: 904-8321

Purpose: Closed labs are designed to help reinforce lectures or introduce new material. Two one-hour lab periods have been set aside each week in which a closed lab will be completed under the supervision of the lab assistant. Closed labs give you the opportunity to discuss problems with classmates and ask in depth questions to the lab assistant.

Grading: If there is any disagreement on scores recorded, you should be prepared to produce graded labs to document the mistake. Thus it would be a good idea for you to keep the returned labs in a notebook. If you disagree with a score received on a lab, see the lab assistant for clarification for the grading.

If you cannot finish and turn in the lab during the scheduled lab time, you may continue to work on the lab and turn it into the lab instructor by **3:00pm Friday of the same week. No labs will be accepted after that time.** You may turn in the late closed labs to the lab instructor by leaving it in her mailbox located in the Computer Science Department office (KOM 306).

- **Open labs:**

Open labs are designed for the students to solve problems assigned without teacher supervision. There will be 7 to 9 open labs assigned.

Each lab will have **ONE** assigned due dates. **Programs turned in after the due date will be given a score of 0.**

Programs are graded based upon design, correctness, documentation, style, efficiency, elegance, and adherence to requirements. You must design, write, implement, and debug your own programs. You may discuss with others about high-level details of program design and implementation. However, the following are not allowed and will be treated as cheating:

1. Show to or acquire from other students any materials related to assignments such as source code and documentation, no matter with intention or not, no matter in which form these materials are presented.
2. Help or seeking help from other students to debug programs. However, you may get help from the lab assistant or the instructor.
3. Copy, or refer to source code from the internet, other students' homework or other source (excludes textbook or materials provided by instructor), no matter with citation or not.

All source code must be **original**. **If it is determined that a student has collaborated on an open lab assignment with others, a grade of zero will be given to all parties collaborating.**

6. **Attendance:**

Attendance is required and absences do not excuse one from class responsibilities. If for some unavoidable reason you must miss class, you should obtain the class notes, handouts, and assignments from the classmates or from the course web page.

You are expected to be on time for class. Consistent lateness to class is disruptive and is considered to be disrespectful. It is best to come late, however, rather than not at all!

Class attendance will be taken each day. **Attendance is determined/judged/counted by the student's initials being written on the daily attendance sheet circulated at the beginning of class. It is each student's responsibility to locate and sign this sheet each class period (during the class).**

If a student does not miss any classes, then 3 points will be added to the final course average.

If a student misses one class, then 2 points will be added to the final course average.

If a student misses two classes, then 1 point will be added to the final course average.

If a student misses three classes, then 1 point will be deducted from the final course average.
If a student misses four classes, then 2 points will be deducted from the final course average.
If a student misses five or more classes, then 3 points will be deducted from the final course average.

7. PeerSpace Participation

You are strongly encouraged to participate in the PeerSpace Online Collaborative Learning Community. Every forum, blog post and comment you post will add 1 point to your PeerSpace community participation score. PeerSpace users are ranked based on this score. In addition, PeerSpace groups are ranked based on the average community participation score of its members.

If you one of the top 50 students in PeerSpace, **1 point** will be **added** to the final course average. If you are a member of a group that is one of the top 15 groups in PeerSpace, **1 point** will be **added** to your final course average.

8. Grading:

Your grade in this class will be based on

- 10% homework
- 40% tests (10% per test)
- 10% closed lab exercises
- 25% open lab assignments
- 15% final exam

In addition, [1, 3] points will be added/subtracted according to the attendance record.
[1, 2] points will be added according to the PeerSpace participation.

Letter grades will be assigned strictly according to the following scale:

- A average at least 90%
- B+ average at least 88% but under 90%
- B average at least 80% but under 88%
- C+ average at least 78% but under 80%
- C average at least 70% but under 78%
- D+ average at least 68% but under 70%
- D average at least 60% but under 68%
- F average under 60%

In order to get C or above, the average score of the open lab assignments is 60% or above.

9. Academic Honesty:

All the open lab assignments and tests are to be done on an individual basis. The penalty for unauthorized collaboration will range from a grade of zero for an individual assignment to a failing grade for the course. ***The first offense will result in a grade of zero for the lab/test. A second offense will result in a failing grade for the class.*** See the Computer Science Academic Policy on Academic Integrity at <http://www.mtsu.edu/~csdept/Academics/academicIntegrity.htm> for a description of unacceptable collaboration.

10. Important Dates:

Last day to drop without a 'w':	Jan 26 th
Last day to drop with a 'w':	March 25 th
Spring break:	March 7 th – 11 th
Last day of classes:	April 27 th
Final Exam:	Section 002: Monday, May 2 nd , 9:30-11:30am Section 003: Monday, May 2 nd , 3:30-5:30pm

11. Notices:

(a) A grade of 'C' or better is required in this course to be eligible to take other CSCI courses having CSCI 2170 as a prerequisite. A grade of C- is not sufficient to satisfy the pre-requisite requirements for courses that list CSCI 2170 as prerequisite.

(b) Students are **not allowed** to use laptop computer in class. If you bring a mobile phone or pager to class or lab, it must be set to **signal you silently**.

(d) **Financial Aid Notice:** To retain Tennessee Education Lottery Scholarship eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 and 48 attempted hours and a cumulative TELS GPA of 3.0 thereafter. You may qualify with a 2.75 cumulative GPA after 72 attempted hours (and subsequent semesters), if you are enrolled full-time and maintain a semester GPA of at least 3.0. A grade of C, D, F, or I in this class may negatively impact TELS eligibility. Dropping a class after 14 days may also impact eligibility; if you withdraw from this class and it results in an enrollment status of less than full time, you may lose eligibility for your lottery scholarship. Lottery recipients are eligible to receive the scholarship for a maximum of five years from the date of initial enrollment, or until a bachelor degree is earned. For additional Lottery rules, please refer to your Lottery Statement of Understanding form, review lottery requirements on the web at http://www.mtsu.edu/scholarships/telsconteligibility_scholarships.shtml , or contact the Financial Aid Office at 898-2830.

(e) **Inclement Weather Policy:** Unless the university is closed, I will meet class, so there is no need to call the office. However, if the school system in your county of residence is closed for bad weather, you have an excused absence from this class.

(f) **Disabled Student Notice:** If you have a disability that may require assistance or accommodation, or you have questions related to any accommodations for testing, note takers, readers, etc., please contact me as soon as possible. Students should also contact the Office of Disabled Student Services (898-2783) with questions about such services.

(g) **Problems or Complaints** If you are having problems with the course or have a complaint you would like to voice, please bring this to the attention of the course instructor as soon as possible.

Keep track of your grades from this class:

	Course Work	Average	Multiply the average by:
Homework	Hw1		10%:
	Hw2		
	Hw3		
Tests	Test1		40%:
	Test2		
	Test3		
	Test4		
OLAs	OLA1		25%:
	OLA2		
	OLA3		
	OLA4		
	OLA5		
	OLA6		
	OLA7		
	OLA8		
CLAs	CLA1		10%:
	CLA2		
	CLA3		
	CLA4		
	CLA5		
	CLA6		
	CLA7		
	CLA8		
	CLA9		
	CLA10		
	CLA11		
	CLA12		
	CLA13		
	CLA14		
	CLA15		
Final Exam	Final Exam		15%:
Final course average = sum of all the scores from this column →			