

# 4883 Programming Techniques

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## General Course Info

- **Days:** Mw 2:00 p.m. - 3:20 p.m.
- **Location:** BO 103
- **Semester:** Monday August 28<sup>nd</sup> - Friday December 8<sup>th</sup>
- **Holidays:**
  - **Labor Day** Monday September 4<sup>th</sup>
  - **Thanksgiving** Wednesday November 22<sup>nd</sup> - Sunday November 26<sup>th</sup>
- **Last Day for "W":** Monday October 30<sup>th</sup>
- **Last Day of Class:** Friday December 8<sup>th</sup>
- **Final Exam:** Monday December 11<sup>th</sup> from 10:30 pm - 12:30 pm

## Course Topics

- ☐ Math
  - ☐ Combinatorics
  - ☐ Basic number theory
- ☐ Standard libraries and data structures
- ☐ Optimizations:
  - ☐ Complete Search, Backtracking, Pruning
  - ☐ Divide & Conquer
  - ☐ Greedy Algorithms
  - ☐ Dynamic programming
- ☐ Graph algorithms:
  - ☐ Graph Traversal
  - ☐ Topological Sorting
  - ☐ Connectivity
  - ☐ Minimum Spanning Trees
  - ☐ Shortest Paths
- ☐ String algorithms
- ☐ Others given time

## Grading

Will be based on number of problems solved. Full credit for on time solutions. Half credit for late submissions. Some credit for accepted solutions with issues (e.g. presentation errors),

Categories	Portion of Course		Letter Grade	Grade Range
Solved Problems	65%		A	89-100
Github	10%		B	79-88
Participation	5%		C	69-78

Categories	Portion of Course		Letter Grade	Grade Range
Presentation	10%		D	59-68
Project	10%		F	below 59

**Participation:** Obviously this has to do with going to class, asking questions, and generally being a physical part of class. But even more importantly it has to do with interacting with our class on Slack. Responding to queries on Slack either with text response or an emoticon reaction to a post. Asking me questions with direct message is a huge help, as I can turn that into (what the military calls) an "overhead correction". Most questions help bring to my attention things that need clarification for everyone. I will be gauging everyone's participation and the best guarantee is on slack as that creates a digital record.

## Miscellaneous

- All students need a [Github](#) account
- All programs need to be turned in to pass the course
- General Assignment Rules:
  - Due dates and times are as listed on assignment and can change with prior notice to class.
  - Formatting of programs is important, and will be graded accordingly.
  - Your name is required on ALL documents uploaded or turned in. Handwritten name is not acceptable.
  - All files / programs created by you will end up in your assignments folder within your Github repository.
- Attending class is one of the primary keys to doing well in this class. Students may be dropped for excessive absences. There is no distinction made between excused and unexcused.
- Make-up exams are not given. If I see fit, then I will replace a missed exam with your final exam test grade (but this is optional to instructor based on circumstances, attendance, participation, etc.).
- Late work will be accepted on a case by case basis. Late penalty is 15 points (out of 100) for initial lateness and 1 half a letter grade (5 points) for every class period until the total reduced is 50 (half credit). Extremely late work is totally at the instructor's discretion on whether it will be accepted or not.
- Programs containing syntax errors are unacceptable and will be returned without grading (your programs must work).
- Periodically homework assignments will be taken up and graded. It is the student's responsibility to keep up with assignments and to ask questions over the assigned work, even if absent. All homework assignments are due at the specified time that may or may not be in conjunction with a class day. All assignments / homeworks will be uploaded via Github.

## My View on Cheating / Plagiarism

- Most plagiarizing, when it comes to programming, happens for two reasons:
  - 1. You don't have a clue how to solve the problem, so you get a friend or the internet to help.

- 2. You didn't start early enough, and you're desperate to get something working the night before it's due, so you get a friend or the internet to help.
- Both are easy to fix.
  - 1. Come ask me to explain. I promise you're not the only one who is confused.
  - 2. Start early. Then when you get stuck, you can ask for help the right way!
- Please read this article as it pertains to our field of computer science: [How To Code Without Plagiarizing](#)
- Also, this might help: plagiarize and get an "F".
  - <https://msutexas.edu/student-life/conduct/>
  - [https://cs.msutexas.edu/documents/CMPS\\_Cheating\\_Policy.pdf](https://cs.msutexas.edu/documents/CMPS_Cheating_Policy.pdf)
- Ultimately it's not cool. It's an insult to those that actually do the work.
- Lastly: Let me reiterate that I'm available for help ... **a lot**. No excuses. I've helped students at 1am via Slack. I'm online consistently afternoons and most nights, just shoot me a message.

## Official Policy on Academic Honesty

The Department of Computer Science had adopted the following policy related to cheating (academic misconduct). The policy will be applied to all instances of cheating on assignments and exams as determined by the instructor of the course. (See below for link to MSU definitions.)

- 1st instance of cheating in a course: The student will be assigned a non-replaceable grade of zero for the assignment, project or exam. If the resulting grade does not result in a letter grade reduction, the student will receive a one letter grade reduction in course.
- 2nd instance of cheating in a course: The student will receive a grade of F in course & immediately be removed from course.
- All instances of cheating will be reported to the Department Chair and, in the case of graduate students, to the Department Graduate Coordinator.

## Official Policy on Testing Process

The Department of Computer Science has adopted the following policy related to testing.

- All bags, purses, electronics (turned off), books, etc. will be placed in the front of the room during exams, or in an area designated by the instructor.
- Unless otherwise announced by the instructor, nothing is allowed on the desk but pen/pencil/eraser and test papers.
- No student is allowed to leave the room during an exam and return.

See Also: MSU Student Handbook: Appendix E: [Academic Misconduct Policy & Procedures](#).

## Major Points

- All students need a [Github](#) account.
- All course communication will be done via Slack or Discord.

- All programs need to be turned in to pass the course.
- Programs containing syntax errors are unacceptable and will be returned without grading (your programs must work).
- Your name is required on ALL documents uploaded or turned in. Handwriting on any document is not acceptable (unless specified).
- All files / programs created by you will end up in your assignments folder within your Github repository.
- Attending class is one of the primary keys to doing well in this class. Students may be dropped for excessive absences. There is no distinction made between excused and unexcused.
- Make-up exams are not given. If I see fit, then I will replace a missed exam with your final exam test grade (but this is optional to instructor based on circumstances, attendance, participation, etc.).
- Cheating or plagiarism on any assignment will not be tolerated.