SYLLABUS
CMPS2443– Discrete Structures and Analysis

Course Description
Introduction to the fundamental techniques of algorithm analysis. Also Boolean logic, combinatorics, functions, graphs, algebraic structures, recursion, recurrence relations, finite state machines, and computability.

Instructor: Dr. Catherine Stringfellow
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Office Hours: MWF 9:30-10:30am, T 10-10:30am 2-3pm, T R 10-11am, 2-3pm & by Appt

Prerequisites: Minimum grades of C in CMPS 1063 and MATH 1233 or MATH 1534.

Course Website
   D2L - All important class documentation, assignments, news items, and your gradebook will be posted here.

Required Textbook and Materials
- Discrete Mathematics and Its Applications, 8th ed., by Rose, *eBook/Smartbook version*. *You will have Inclusive Access to this text and the homework. You may opt out of inclusive access and purchase it on your own, but the cost will be more expensive.* DO NOT PURCHASE THE CODE ON AMAZON, EBAY, OR ANY OTHER SITE. IT WON'T WORK AND YOU PROBABLY WON'T GET YOUR MONEY BACK.
- Click on the McGraw-Hill Course Connect link in D2L under the Course Information Folder
- Supplementary material and lecture notes on D2L.

General Topics
- Propositional Logic
- Proofs
- Sets
- Functions
- Recurrence Relations
- Matrices
- Algorithm Analysis
- Number Theory
- Permutations & Combinations
- Equivalence Relations
- Graphs and Connectivity

Instructional Methods and Techniques:
The class will meet for three one-hour lecture/discussion periods each week. Some lectures may be supplemented with handouts available on D2L.

Exams and Assignments
There will be three exams and one comprehensive final exam. Exams cover material from the text as well as handouts. The lectures may not cover all the material in the textbooks. There will be programming, auto-graded homeworks in Connect and quizzes. Projects are expected to be complete and robust, including good user interfaces and the ability to handle improper input. Good documentation will also be expected. ***All programs must be turned in to pass the course – see program grading policy in D2L.***

Course Evaluation
4 Programming Projects	= 20%.
Online Homework	= 10% (graded by Connect System)
In-Class Quizzes	= 12.5%
3 tests	= 37.5%
1 Comprehensive final exam	= 20%

Grades may be determined according to this scale (approximate):

A	90% - 100%		C	70% - 79%
B	80% - 89%		D	55% - 64%

Course and Department Policies

Attendance Policy
Although student attendance is not calculated into the grade, attendance will be taken each day to track students. If a student is absent more than 2 classes without an excuse and is not performing well in class, a report will be submitted to the Dean of Students and the student may be dropped from the class. Classes will not be streamed for absent students, whether it is excused or not.

Behavior in the classroom
Students are to assist in maintaining a classroom environment that is conducive to learning. This means that the presence of electronic devices other than your calculator are not to be seen, heard, or implied, ever. Questions are encouraged and discussion is acceptable, provided it is pertinent and does not distract from the lesson.

Make Up Work/Exams/Quizzes:
- For planned excused absences: Exam may be taken early by prior arrangement.
- For unplanned excused absences: Student must make up a missed exam within 4 working days. All other missed exams will receive a zero.

Late Work

Late programs will be accepted up to 7 days late with a 10 point deduction per day. ***No late programs for last programming assignment. No late homework will be allowed in the Connect System.***

Computer Requirements: Taking this class requires you to have access to a computer (with Internet access) to access online course material. ***Personal computer technical difficulties will not be considered a reason for extra time to submit assignments, tests, or online discussion postings.*** Computers are available on campus in various areas of the buildings, as well as the in the library. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The university cannot work directly on student computers due to both liability and resource limitations, however they are able to help you get connected to our online services. For help, log into **D2L.**

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.
- A student who leaves the room during an exam must turn in the test and will not be allowed to return.

Computer Science Tutoring

Tutoring is available in ***Bolin Room 119 & the Office of Tutoring and Academic Support Programs (TASP)*** in Moffett Library. A tutor may assist with programs and homework for computer science classes. The tutor will not do your work.

Academic Misconduct Policy & Procedures

Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). The Department of Computer Science has 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 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.

Note: Letting a student look at your work is collusion and is academic misconduct!

See Also: MSU Student Handbook: Appendix E: Academic Misconduct Policy & Procedures
https://msutexas.edu/student-life/_assets/files/handbook.pdf.

University Policies and Procedures

Student Resources: Quick access to several student resources can be found at Student Resources.

Covid Precautions
Students are encouraged to wear a mask. Any vulnerable or unvaccinated person should wear an N95 or equivalent, if they want to protect themselves from others. Students may also meet the intructor via Zoom by appointment. Covid vaccinations are provided free of charge – and may be obtained on campus on designated vaccine clinic days or by appointment at the Vinson Health Center, or by local pharmacies.

Student with Disabilities
Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible. Students should present appropriate verification from Disability Support Office during the instructor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification has been provided. For additional information, contact the Disability Support Office in Clark Student Center 168 - Phone: (940) 397-4140

Policy on Concealed Handguns on Campus
Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry *concealed* handguns on campus, effective August 1, 2016. Please note, open carry of handguns, whether licensed or not, and the carrying of all other firearms, whether open or concealed, are prohibited on campus. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University's webpage at MSU Campus Carry Policy *https://msutexas.edu/campus-carry/rules-policies*. If you have questions or concerns, please contact MSU Chief of Police Patrick Coggins at **patrick.coggins@msutexas.edu**.

Recording of Class Lectures
Permission must be requested in writing and obtained from the instructor before recording of class lectures. If permission is granted, the recording may only be used by the student making the recording. Recordings (or any class materials) may NOT be posted on any internet source without written permission of the instructor. Failure to adhere to the policy may result in removal from the course with a grade of F or other appropriate punishment.

Midterm Progress Report
In order to help students keep track of their progress toward course objectives, the instructor for this class will provide a Midterm Progress Report for all students in the course through each student's WebWorld account. Midterm grades will not be reported on the students' transcript; nor will they be calculated in the cumulative GPA. They simply give students an idea of where they stand at the midpoint of the semester. Students earning below a C at the midway point should a) schedule a meeting with the professor and b) Seek out tutoring.

Opt-out for Digital Course Materials
Required digital materials for this course are part of the Courseware Access and Affordability Program at MSU Texas. Students are charged for required course materials on their student account with the Business Office. Any students who wish to opt-out of the Program and purchase the required course materials on their own must do so prior to 01/27/22. Opt-out instructions are sent to students' official my.msutexas.edu email address after the first day of class. Please contact the MSU Bookstore if you have any questions about the opt-out process.

Important Dates
Visit MSU's Registrars website Important Dates https://msutexas.edu/registrar/_assets/files/pdfs/spring22front.pdf