CMPS 3233-201: Theory of Computation

Spring 2021

Instructor: Tina Johnson, Bolin 126F, (940) 397-6201, tina.johnson@mwsu.edu

Course Prerequisite: CMPS 1063 and CMPS 2433 with a grade of C or better

Text: Intro to Formal Languages & Automata (w/CD) Edition: 6th, Linz, ISBN 978-1284077247

Software: JFLAP, open-source.

Catalog Description: Study of the fundamental mathematical properties of hardware, software, and their applications. Emphasis is on the capabilities and limitation of computers, including finite automata, push-down automata, and Turing machines.

Course Grades

Exams (3)	45% (15% each)
Final Exam	20%
Quizzes/Homework	20%
Boardwork & participation	15%

Tentative Agenda

Week	Date	Material Covered
1	Jan 12, 14	Course Information, Ch 1
2	Jan 19, 21	MLK (no classes on Mon), Ch 2
3	Jan 26, 28	Ch 2
4	Feb 2, 4	Review, Test 1: Ch 1 & 2
5	Feb 9, 11	Ch 3
6	Feb 16, 18	Ch 3, 4
7	Feb 23, 25	Ch 4
8	Mar 2, 4	Review, Test 2: Ch 3 & 4
9	Mar 9, 11	Ch 5
10	Mar 16, 18	Ch 5, 6
11	Mar 23, 25	Ch 6, 7
12	Mar 30, Apr 1	Ch 7, Holiday Break, No Classes Thurs, Apr 1
13	Apr 6, 8	Ch 7, Review
14	Apr 13, 15	Test 3: Ch 5-7, Ch 9
15	Apr 20, 22	Ch 9, Review
16	Thurs, Apr 29, 1-3pm	Final Exam, Comprehensive, Ch 1-7 & 9

Course and Department Policies:

<u>Behavior in the classroom</u>: 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.

<u>Late Work</u>: Late homework will be accepted with a penalty of 5 points per day late and will be accepted only until homework is returned (usually class after due date). Quizzes cannot be made up, but one quiz/homework grade will be dropped.

<u>Computer Requirements</u>: Taking this class requires you to have access to a computer (with Internet access) to access homework and other class materials. It is your responsibility to have (or have access to) a working computer in this class. Personal computer technical difficulties will not be considered a reason for extra time to submit assignments, tests, or online discussion postings. Online class material can be accessed from any computer in the world that is connected to the internet. Computers are available on campus in various areas of the buildings, as well as the Academic

Success Center. 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.

<u>Academic Misconduct Policy & Procedures</u>: 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 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. In addition, 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.

See Also: <u>MSU Student Handbook</u>: Appendix E: Academic Misconduct Policy & Procedures

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.

UNIVERSITY POLICIES AND PROCEDURES

<u>Student with Disabilities</u>: 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 to make any necessary arrangements. 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 from Disability Support Office has been provided. For additional information, contact the Disability Support Office in Clark Student Center 168 - Phone: (940) 397-4140

<u>Policy on Concealed Handguns on Campus</u>: Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information, please refer to the <u>Policy on Carrying Concealed Handguns on Campus</u> If you have questions or concerns, please contact MSU Chief of Police Patrick Coggins at patrick.coggins@msutexas.edu.

<u>Recording of Class Lectures</u>: 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.

Important Dates: See the Spring 2021 Academic Calendar for important dates.

COVID-19 Policy:

All members of the MSU Texas Community (students, faculty, staff, visitors, vendors and contractors) are required to wear protective face coverings on campus or in University facilities as provided below:

- I. Requirements
 - a. In common areas on campus including, but not limited to, classrooms and other spaces used for teaching, research, and creative activity, student center, library, hallways, elevators, stairwells, restrooms, break rooms, foyers, event rooms and lobbies;
 - b. Other areas where physical distancing of at least 6 feet is not maintained. Even when physical distancing of at least 6 feet can be maintained, face coverings are strongly recommended.
- II. Exceptions
 - a. When eating or drinking, which should still be conducted maintaining physical distance;
 - b. In accordance with applicable law (e.g., an accommodation, including for medical reasons, under the Americans with Disabilities Act (ADA), or pursuant to a bona fide religious belief);
 - c. For children under the age of 2 years old; or
 - d. By an instructor/presenter in a classroom or event room when a physical distance of at least 10 feet can be maintained from the class members/audience.