TEXAS A&M UNIVERSITY

SYLLABUS

Course title & number	CSCE 222 [Sec. 503] Discrete Structures for Computing
Term	Fall 2019
Meeting times & location	TR 11:10am – 12:25pm, HRBB Room 124

Course Description and Prerequisites: This course provides the mathematical foundations from discrete mathematics for analyzing computer algorithms, for both correctness and performance; introduction to models of computation, including finite state machines and Turing machines. Prerequisite: MATH 151.

Learning Outcomes and Course Objectives: At the end of the course, students will understand the basic principles of logic, proofs and sets. Students will be able to apply results from discrete mathematics to the analysis of algorithms. Students will be able to produce proofs by induction and apply counting techniques. Students will have a basic understanding of models of computation.

Instructor Information:

Name	Prof. Dr. Hyunyoung Lee
Email address	`hlee@cse.tamu.edu` or `hlee42@tamu.edu`
Office hours	M 11:00am-12:15pm and R 2:15pm-3:00pm
Office location	HRBB 414B
Office telephone	979 845 2490

Teaching Assistant Information:

Name	Mr. Pulakesh Upadhyaya
Email address	`pulakesh@tamu.edu`
Office hours	MW 1:00-3:00pm and TRF 9:00-11:00am
Office location	HRBB 526

Textbook and Resource Material:

Kenneth Rosen, *Discrete Mathematics and Its Applications, 8th Ed.*, McGraw-Hill, 2019. ISBN: 978-1-259-67651-2

eCampus: `https://ecampus.tamu.edu`

Course homepage: `http://faculty.cse.tamu.edu/hlee/csce222/`

Grading Scheme: Your grade will be based on the following components:
- exams 60%: There will be two midterm exams and one comprehensive final exam each worth 20%. The exams will be held in class and are closed book and closed

notes, and no electronics including calculators and smart phones are allowed during the exams unless otherwise stated.

- quizzes and exercises 10%: There will be weekly quizzes and exercises, each consisting of a few simple questions. Your lowest quiz grade will be dropped.
- homework 30%: These are essay style assignments, for which you are required to use the LaTeX typesetting system to type in your answers. All assignments will be announced in class and posted on the eCampus course page. If you miss class for any reason, it is your responsibility to find out what assignments/announcements you missed. Your lowest homework grade will be dropped.

Final grades will be assigned according to this scale:
A: 90 and above, B: 80-89, C: 70-79, D: 60-69, F: below 60
The scale may be adjusted by the instructor to reflect score variations.

Attendance and Make-Up Policies: Class attendance is strongly recommended. The student is responsible for any material and announcements missed.

Make-ups for assignments, quizzes, and exams will be given only under circumstances beyond student's control (a university sanctioned excuse). Prior arrangements with the instructor must be made when feasible and official verification of circumstances necessitating the absence will be required.

Any make-up work must be completed before the solutions are posted or the graded results become available to the students, whichever occurs first.
See `http://student-rules.tamu.edu/rule07` for more information.

Submission of Work, Deadline Policy, and Late Submission Policy: All assignments must be submitted electronically using the eCampus Turnitin system by the due date and time specified in the assignment. E-mail submissions will not be accepted (they will be ignored without notice).

Late submission beyond the deadline will not be accepted in general, unless a university sanctioned excuse is provided *ahead of time*. In case you have difficulties finishing an assignment contact the instructor *before* the deadline. Note that work turned-in on time is eligible for partial credit.

Regrading Policy: A student can request regrading of any graded material if the student believes that the points assigned are inconsistent with the quality and merits of the submitted work. To request regrading the student must follow the guidelines below:

1. Regrading requests must be submitted to the instructor within one week after the graded item has been returned (in hardcopy or electronically via eCampus) to the student. After this time limit no regrading requests will be honored.
2. Regrading requests must be in written form, accompanied by a reasonable amount of specific justification and documentation.

Course Conduct and Academic Integrity: Each assignment will be done individually. Note the following acceptable/unacceptable collaborations:

Acceptable collaboration includes: (1) discussing the assigned problems to understand their meaning or (2) discussing possible approaches to assigned problems. However, you must explicitly acknowledge any help received from someone and reference every source you use, whether it is a person, a book, a paper, a solution set, a web page or whatever.

Unacceptable collaboration includes: (1) copying (verbatim use) of physical papers or computer files (including program files), (2) submission of solutions that are jointly authored, or authored either wholly or in part by other individual, or (3) providing physical papers or computer files (including program files) of your (or third-party) solutions to other individuals.

In general, the strategy and approach of solutions may be discussed together but all actual solutions must be constructed and written up by the student herself/himself, and the final product must not be shared in any way. You should make sure all of your files are properly secured since you may be responsible if someone copies your files. Should questions arise during the course of working on a problem, immediately contact the instructor either by telephone, email, or by an office visit.

Course Topics, Calendar of Activities, Major Exam Dates: Tentative schedule; please refer to the course homepage for more details and up-to-date information.

Week	Dates	Topics	Reading
1	8/26–8/30	Logic and Proofs	Chapter 1
2	9/2–9/6	Logic and Proofs	Chapter 1
3	9/9–9/13	Sets, Functions, and Algorithms	Chapter 2
4	9/16–9/20	Algorithms and their Complexity	Chapter 3
5	9/23–9/27	Exam 1; Algorithms and their Complexity	Chapter 3
6	9/30–10/4	Sequences and Sums	Chapter 2
7	10/7–10/11	Induction and Recursion	Chapter 5
8	10/14–10/18	Induction and Recursion; Counting	Chapters 5, 6
9	10/21–10/25	Counting; Solving Recurrences	Chapter 6, 8
10	10/28–11/1	Exam 2; Solving Recurrences	Chapter 8
11	11/4–11/8	Solving Recurrences	Chapter 8
12	11/11–11/15	Relations	Chapter 9
13	11/18–11/22	Models of Computation	Chapter 13
14	11/25–11/29	Models of Computation	Chapter 13
15	12/2–12/4	Models of Computation; Review	Chapter 13

Midterm exam 1: Thursday, 9/26/2019 during our regular class.
Midterm exam 2: Thursday, 10/31/2019 during our regular class.
Final exam: Friday, 12/6/2019, 3:00–5:00 p.m. in our classroom.

Americans with Disabilities Act (ADA) Policy Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit `http://disability.tamu.edu`.

Copyrights: The handouts used in this course are copyrighted. "Handouts" mean all materials generated for this class, which include but are not limited to syllabi, in-class materials, class notes, solutions provided by the instructor, exams, review sheets, and problem sets. Because these materials are copyrighted, you do not have the right to copy such handouts or provide them to others, unless the author expressly grants permission.

Scholastic Dishonesty: As commonly defined, plagiarism consists of passing off as one's own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of the person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules [`http://student-rules.tamu.edu/rule52`], under the section "Academic Misconduct."

Academic Integrity Statement: *"An Aggie does not lie, cheat, or steal or tolerate those who do."*
Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit `http://aggiehonor.tamu.edu`.

On all assignments and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student: *"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."*