

Course title and number	CSCE 222 Section 503 Discrete Structures for Computing
Term	Spring 2015
Meeting times and location	MWF 3:00-3:50 pm, EABA 130

Course Description and Prerequisites

The 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 or Course Objectives

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

Instructor Information

Name	Philip C. Ritchey
Telephone number	979-862-6476
Email address	ritchey@cse.tamu.edu
Office hours	Tuesday, Wednesday, Thursday 10:20am – 11:10am, and by appointment
Office location	HRBB 326

Textbook and Resource Material

Kenneth Rosen, *Discrete Mathematics and Its Applications*, 7th ed., McGraw-Hill, 2012
 Course home page: <http://faculty.cse.tamu.edu/ritchey/courses/csce222/spring15>

Course Topics, Calendar of Activities, Major Exam Dates (Tentative)

Week	Topic	Reading
1/20 – 1/23	Logic and Proofs	Chapter 1
1/26 – 1/30	Logic and Proofs	Chapter 1
2/2 – 2/6	Sets and Functions	Chapter 2
2/9 – 2/13	Relations	Chapter 9
2/16 – 2/20	Sequences and Sums	Chapter 2
2/23 – 2/27	Algorithms and their Complexity	Chapter 3
3/2 – 3/6	Induction and Recursion	Chapter 5
3/9 – 3/13	Induction and Recursion	Chapter 5
3/23 – 3/27	Counting	Chapter 6
3/30 – 4/3	Counting	Chapter 6

Week	Topic	Reading
4/6 – 4/10	Solving Recurrences	Chapter 8
4/13 – 4/17	Models of Computation	Chapter 13
4/20 – 4/24	Models of Computation	Chapter 13
4/27 – 5/1	Models of Computation	Chapter 13
5/4 – 5/5	Review	All Chapters

Tentative dates for

Midterm 1: Monday 2/23/2015 in class

Midterm 2: Monday 3/30/2015 in class

Final exam: Monday 5/11/2015 starting at 10:30am in our classroom.

Grading Scheme and Course Requirements

1. Attendance Policy

Class attendance is strongly recommended. The student is responsible for any material missed. Missed exams and quizzes may be made up only when the absence is university sanctioned. Medical reasons or other extenuating conditions beyond the control of the student must be properly documented. Discuss unusual circumstances *in advance* with the instructor when possible.

2. Grading Scheme

Your grade will be based on the following components:

exams 60% - There will be two mid-term exams and one comprehensive final exam each worth 20%. The exams will be held in class and are closed book and closed notes unless otherwise stated.

quizzes and exercises 10% - There will be in-class quizzes and exercises, consisting of a few simple questions. Your lowest grade in this component will be dropped.

homework 30% - These are pencil-&-paper style exercises. All assignments will be announced in class and posted on the course home page. If you miss class for any reason, it is *your* responsibility to find out what assignments 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.

3. Submission of Work, Deadline Policy, and Late Submission Policy

All assignments must be submitted electronically using **eCampus by the due date and time** and an honor-code signed hardcopy must be turned in at the beginning of class of the due date (as specified in the assignment). E-mail submissions will not be accepted (they will be ignored without notice). You have to follow the submission and media policies and guidelines published on the web.

Late submission beyond the cutoff 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. It will always be better to turn work in by the deadline, as by trying to “perfect” it and turning it in late, you will receive no points at all.

4. Re-grading Policy

A student can request re-grading of assignments and exams, if he/she believes that the points assigned are inconsistent with the quality and merits of the submitted work. To request re-grading you have to follow the guidelines below.

1. Re-grading requests must be submitted to the INSTRUCTOR WITHIN ONE WEEK after the graded item has been returned to the student and solutions have been made public. After this time limit NO re-grading requests will be accepted.
2. Re-grading requests must be in written form, accompanied by a reasonable amount of specific justification and documentation.

5. Excused Absences and Make-up Policy

Make-ups for assignments 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.

6. Course Conduct and Academic Integrity

Each assignment will be done individually.

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. 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, electronic mail, or by an office visit. In principle, if you work with others in good faith and are honest and generous with your attributions of credit you will have no problems.

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, the 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, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>.

Copyrights

The handouts used in this course are copyrighted. By "handouts" we 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 additional problem sets. Because these materials are copyrighted, you do not have the right to copy such handouts, 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."**