MATH 22 – Spring 2015
Discrete Mathematics
M T W Th F 9:30 – 10:20 AM, E-32
Section 5 (Code 43653)

Instructor: S. Arabhi (aa- rub- hee)

Office: E-37

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Office Hours: **T&Th** : 10:20 to 11:00 AM
You are also welcome to fix appointments with me at other times.

Required Text: Discrete Mathematics, "An Introduction to Mathematical Reasoning" By Susanna S. Epp
 Brief Edition (Brooks/Cole).

Course Objectives: (This is not an exhaustive list.)
The primary goal in this course is to introduce you to mathematical proofs, techniques, and terminology, and to begin mathematical sophistication. Some of the topics introduced would be sets, logic, methods of proof including mathematical induction, functions, relations, elementary Combinatorics, probability, counting sets.
Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (not necessarily in this order)

Student Learning Outcomes:
1. Critique a mathematical statement for its truth value, defend choice by formulating a mathematical proof or constructing a counterexample.

2. Analyze and apply patterns of discrete mathematical structures to demonstrate mathematical thinking.

Homework: Reading assignments & problems from the text will be assigned in every class and it is your responsibility to solve the problems and keep a written record. We will discuss solutions to some problems, but not all. I will collect homework problems after finishing each chapter. I will check homework for completeness and may occasionally check it for correctness. I will **not** accept homework on paper torn from spiral notebooks. Also, staple or use paper clips to hold your work together. Please do not fold the corners. LATE OR ILLEGIBLE HOMEWORKS WILL NOT BE ACCEPTED. Please also go over the Homework Dos and Don'ts handout thoroughly. **Please find out about any missed work, assigned homework from a friend, if you are absent from class. Please do not ask me.**

Quizzes: There will be a quiz (almost) every Friday at the end of the class (10 – 15 minutes), related to the material taught in the previous five classes. The problems will be similar to the homework problems and solved examples in the text. _**Don't miss any of these, since there will absolutely be no make-up quizzes before or after**_. However, there will be 12 quizzes during the quarter and I will only take the 10 highest scores, so if you miss one or two quizzes, you should be fine (i.e. if you do well on the other quizzes).

Exams: There will be three written exams and a final exam. All exam dates are on our calendar. There will be NO MAKEUPS for any of the exams, either before or after. If you miss a midterm exam, your final exam percentage will replace your score for that midterm. It is your responsibility to let me know as soon as possible if you are going to miss an exam (via phone, e-mail, note, in-person, etc). **FINAL EXAM IS SCHEDULED FOR Wednesday, June 24th from 9:15 AM to 11:15 AM in Room E32.** All mid-term exams and Final exam are mandatory, and if you cannot take any of the exams at the scheduled time and date, please do not enroll in this class. The final exam will be CUMULATIVE, i.e. it will contain everything covered during the course.

Pop Quizzes/ Class Participation:

Attendance is strongly emphasized and class participation is actually part of your course grade. I will give pop quizzes anytime, any day, so be on time and do not miss classes. Study every day and be ready with any questions you have. I always encourage class discussions. My classes always begin promptly, so I ask that you be on time. Please wear a watch and don't enter the classroom if you are late. [During the first week of class this policy is relaxed.] Students who attend regularly and show up on time to my classes are almost always successful. I may drop a student from the class if they are absent 4 or more times. (But do not assume if you stop coming to class, you will automatically be dropped. You are responsible for dropping yourself out of this class). I will also drop any student who, in my judgment, is habitually disrupting the class. Please switch off all noise making devices and wait to text until after the class ends.

Grading:

Pop quizzes & Class Participation	25 Points	M T W Th F
Quizzes (5 Points each)	50 Points	Almost every Friday
Homeworks (10 points each)	100 Points	Will be announced in class.
Exam 1	50 Points	Tuesday, April 28th, 2015
Exam 2	50 Points	Tuesday, May 19th, 2015
Exam 3	50 Points	Tuesday, June 9th 2015
Final Exam	**100Points**	**Wednesday, June 24th, 2015 9:15 AM – 11:15 AM**

Letter Grade: I do not curve. Course grades will be determined on a standard scale:

$\geq 97\%$ → A+   94 - 96.9% → A   90 - 93.9% → A-
87 - 89.9% → B+   84 - 86.9% → B   80 - 83.9% → B -
77 - 79.9% → C+   70 - 76.9% → C
67 - 69.9% → D+   64 - 66.9% → D   60 - 63.9% → D –
$\leq 59.9\%$ → F

MISCELLANEOUS:

- Last day to **drop class** with a full refund is **Sunday, April 19th**.

- Last day to **drop a class** with no record of grade is **Sunday, April 19th**.

- Last day to request pass/ no pass grade is Friday, May 1st.

- The deadline for dropping with a "W" **is Friday, 29th May**. In every case, a student is responsible for dropping him/herself. You should not assume that you are automatically dropped from the class for non-attendance. Students on the final grade roster who have not dropped, and who do not show up for the final exam, automatically receive an F in the course.

- **Last day to add** is Saturday, April 18th. I will hand out add codes to students who want to add this course based on the class strength, attendance and/or quiz result(s). Attending class does not mean you will be automatically handed an add code.

- **Cheating** on any exam/quiz/assignment/tutorial may result in an F grade for the course. You are expected to do your homework on your own. Do not copy other students' material. Looking at someone else's exam, helping another student during an exam, talking to anyone except me during an exam, or using an external source of information for which you were not explicitly given permission, will result in an instructor drop or an F grade for the course. Cheating incidents will also be reported to the Dean of Students.

- **<u>A Word about cell phones</u>:** It is my expectation and your responsibility that your phone be turned off and stowed in your purse or backpack during class. They should never be seen while class is in session. If your phone sounds during a quiz or exam, this will be an indication that you are done with the quiz or exam and you risk having your paper taken from you or points deducted. Please switch off your cell phones / beepers before entering the class out of courtesy to others. If you decide to take a call or text during class, I'll probably ask you to take the rest of the class off.

- Calculators are not required, but a **scientific calculator** might be useful when we discuss probability. Unless I mention, you will not be allowed to use a calculator on quizzes or exams. Cell phones cannot be used as Calculators any time.

<u>Additional Assistance</u>

1) <u>Your classmates</u>: Many students find informal study partnerships and groups to be **most helpful** in learning math. I recommend that you study with others in this class. The effort to meet someone in class is worthwhile.

2) **Me:** Please feel free to ask me questions during class time or fix appointments outside class timings. I'll give you as much direction and assistance as I can, and refer you to additional resources as needed. Do not wait until you are drowning to get help.

3) The Math, Science & Technology Resource Center (MSTRC) in S43 provides assistance M-Th: 830 AM to 630 PM and F: 8:30 AM to 12:30 PM. The tutorial center will be of limited help, though, since Math 22 is not a commonly taken class.

4) Any student with a documentable disability who needs academic accommodations should contact:
   a) Disability Support Services (DSS): Student Services Building (408) 864 8839
   b) Educational Diagnostic Center (EDC): Learning Center West 110; (408) 864 8839
   c) Special Education Division: 864 8407; WWW.deanza.edu/specialed

The key to being able to take advantage of any of these services is to be quick to recognize your need for assistance. It is always better to seek help sooner rather than later.

Contract
One purpose of this course guideline is to provide you with the guiding principles upon which the class runs, and another is to make sure that you have at your fingertips, answers to any questions, which might arise. Please put this sheet in a safe place, where you can easily refer to it. **Make sure you read it in it's entirety before you ask me any questions about the course.**