Math 343 Fall 2013

Time and Place: MF 2:45-4:00 p.m. RS202

Instructor: Maria Zack, Ph.D.

Phone Number: 849-2458

Office Number: S222

Office Hours:
Monday	4:00-5:00 p.m.
Tuesday	10:30-11:30 a.m.
Wednesday	1:30-2:30 p.m.
Thursday	9:30-11:00 a.m.
Friday	1:30-2:30 p.m.

These are the hours that I will definitely be available. You can come by my office any time and if I am free I will help you (you can also call me at home if you call **before 8:45 p.m.** 760-753-7861). I keep a sign-up sheet on my office door and you can sign up for any empty time slot (there are slots other than my office hours) if you want to be sure that the time is reserved for you. If you are have a question or just want to hang out, come by my office.

Text: *Discrete and Combinatorial Mathematics (5th Edition)* by Grimaldi

Content:
This course is a study of discrete mathematics. Topics covered include sets, functions, propositional logic, switching theory, graph theory, induction, proof by contradiction, combinatorics and probability.

Objectives:
This course is a blend of computational and theoretical mathematics. The goals for the course are:
- To introduce the student to the topics and techniques of discrete methods and combinatorial reasoning (calculus is the study of continuous functions as opposed to discrete functions).
- To expand the student's methods of inquiry and exploration.
- To present an adequate survey of discrete mathematics for computer science, physics, engineering and mathematics to prepare student for coursework in their discipline.

Learning Outcomes:
- Students will be able to write proofs.
- Students will be able to demonstrate facility with algebraic structures.
- Students will be able to apply their mathematical knowledge to solve problems.
- Students will use the theory of algorithms and computation to solve problems.

Grading:
Your grade for the course is based on:
Homework Exercises	300 points
2 Mid Term Exams (200 points each)	400 points
A comprehensive final exam	300 points

The grading scale for the course is:

	A	B	C	D
+		(87,90)	(77,80)	(67,70)
	[92,100]	[82,87]	[72,77]	[62,67]
-	[90,92)	[80,82)	[70,72)	[60,62)

Homework:
Homework will be assigned each day at the end of class. All homework assigned in a week will be **due in class** the next Friday. No late homework will be accepted except by prior arrangement or with a documented emergency. Homework assignments are posted on the bulletin board by my office door. The object of the homework is to learn how to do the problems so I expect to see calculations on your homework using the terminology and methods of the class and not just the answer. A random selection (the same for all people) of the problems will be graded on any homework assignment.

Exams:
There are two in-class exams. If you do not take an exam you will receive a zero for it. Late exams may be taken only by prior arrangement or with a documented emergency. I must participate in the decision for you to miss an exam; this means that you need to phone me before missing an exam.

Final:
The final is cumulative and is given on **WEDNESDAY DECEMBER 18 1:30-4:00 p.m.** The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. Only in the case that a student is required to take three exams during the same day of finals week is an instructor authorized to change the exam date and time for that particular student.

Attendance:
Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day.

Regular and punctual attendance at all classes in which a student is registered is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements to be met. There are no allowed or excused absences except when absences are necessitated by certain university-sponsored activities and are approved in writing by the Provost. Whenever the number of accumulated absences in a class, for any cause, exceeds ten percent of the total number of class meetings, the faculty member has the option of filing a written report to the Vice Provost for Academic Administration which may result in de-enrollment, pending any resolution of the excessive absences between the faculty member and the student…If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of W or WF (no grade). There are no refunds for courses where a de-enrollment was processed." (see catalog for full text)

Class Enrollment:
It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

Academic Accommodations:
While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. This policy assists the university in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities (ADA) Act of 1990, and ADA Amendments Act of 2008, all of which prohibit discrimination against students with disabilities and guarantees all qualified students equal access to and benefits of PLNU programs and activities.

Students with learning disabilities who may need accommodations should discuss options with the instructor during the <u>first two weeks</u> of class.

Academic Honesty:
The Point Loma Nazarene University community holds the highest standards of honesty and integrity in all aspects of university life. Academic honesty and integrity are strong values among faculty and students alike. Any violation of the university's commitment is a serious affront to the very nature of Point Loma's mission and purpose.

Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. Such acts include plagiarism, copying of class assignments, and copying or other fraudulent behavior on examinations. For more details on PLNU's policy go to:
http://www.pointloma.edu/experience/academics/catalogs/undergraduate-catalog/point-loma-education/academic-policies

A student who is caught cheating on any item of work will receive a zero on that item and may receive an "F" for the semester. See the PLNU Catalog for a further explanation of the PLNU procedures for academic dishonesty.

E-mail:
I expect that you regularly use e-mail. I will periodically send you information and updates via e-mail. In the first two weeks of class you <u>must</u> activate your PLNU e-mail account if you are not currently using it.

Some Tips About This Class:
- You will have reading every night. Don't get behind! Reading mathematics is a fairly slow process and will require you to read things more than once.
- Read with a pencil in hand. Be sure to fill in details and check the author's computations. I will probably help your studying if you write these calculations in the margins.
- Work lots of problems. Part of becoming good at mathematics is practice.
- Work in groups. You learn a lot if you have to explain your solution to someone else (we will be doing this in class).
- Stay current with your assignments (cramming won't help)
- If you have a question ***ASK***.

	Monday	Tues	Wed	Thurs	Friday
Aug	**26** Lead Week	**27** Lead	**28**	**29**	**30** Lead Week
September	**2** Labor Day	**3**	**4**	**5**	**6** No Class - Read Section 1.1 and do problems 1-7 on page 11.
	9 No Class - Read Section 1.2 and do problems 11, 13, 14, 16 ,18, 20, 27, 35	**10**	**11**	**12**	**13** Discuss problems from 1.1 and 1.2 Chapter 1 (1.3)
	16 Chapter 1 (1.4)	**17**	**18**	**19**	**20** Chapter 2 (2.1)
	23 Chapter 2 (2.2 and 2.3)	**24**	**25**	**26**	**27** No Class - Truth Table Project
October	**30** Chapter 3 (3.1) and Exam Review	**1**	**2**	**3** Review Session	**4** EXAM #1
	7 Chapter 3 (3.2 and 3.3)	**8**	**9**	**10**	**11** Chapter 4 (4.1 and 4.2)
	14 Chapter 4 (4.3 and 4.4)	**15**	**16**	**17**	**18** Chapter 4 (4.5) Chapter 5 (5.1)
	21 Chapter 5 (5.2 and 5.3)	**22**	**23**	**24**	**25** Fall Break
	28 Chapter 5 (5.5 and 5.6)	**29**	**30**	**31**	**1** Chapter 8 (8.1 and 8.2)
November	**4** No Class - Begin work on History Project	**5**	**6**	**7**	**8** Chapter 8 (8.3) and Exam Review **Review Session SUNDAY 11/10**
	11 EXAM #2	**12**	**13**	**14**	**15** Chapter 10 (10.1 + bubble sort)
	18 No Class - History Project	**19**	**20**	**21**	**22** Chapter 10 (10.2 and 10.3)
	25 Chapter 11 (11.1 and 11.2)	**26**	**27**	**28** Thanksgiving Recess	**29**
December	**2** Chapter 11 (11.3 and 11.4)	**3**	**4**	**5**	**6** Chapter 11 (11.5 and 11.6)
	9 Chapter 12 (12.1 and 12.2)	**10**	**11**	**12**	**13** Review for the Final Exam
	16	**17**	**18**	**19**	**20**
	MTH343 Final WEDNESDAY 12/18 1:30-4:00 P.M.				