Math 352 History of Mathematics
Spring 2013

Time and Place: TR 8:30-9:20 a.m. S013

Instructor: Maria Zack, Ph.D.

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Office Number: S222

Office Hours:

Monday	11:00 a.m.-12:00 p.m.
Tuesday	9:30-10:30 a.m.
Wednesday	10:45-11:45 a.m. and 5:00-6:00 p.m.
Thursday	2:30-3:30 p.m.
Friday	1:00-2:00 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 have a question or just want to hang out, come by my office.

Text: *Journey through Genius* by William Dunham

Content:
This is a course is designed to give an overview of the history of mathematics. The focus of the course will be the time from the earliest development of mathematics up through the development of calculus (early 18th century). Some attention will be given to modern mathematics and the non-traditional mathematics of underrepresented peoples.

Catalog Description:
Development of mathematics from pre-Greek to recent times. Perspectives and contributions of persons from diverse cultural, ethnic, and gender groups. Impact of culture on mathematical progress.

Learning Outcomes:
- Students will be able to write proofs.
- Students will be able to demonstrate facility with analytical concepts.
- Students will be able to demonstrate facility with algebraic structures.
- Students will be able to speak about their work with precision, clarity and organization.
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- Students will collaborate effectively in teams.
- Students will have an understanding of the historical development, contemporary progress and societal role of mathematics.

The best way to **learn** mathematics is by **doing** mathematics. We will be discussing the history of mathematics but we will also be <u>doing problems using methods from the past</u>.

Grading:
Grades are based on the total number of points accumulated throughout the course. The points for each activity are:

Homework	300
Mid-term Project	200
Timeline	200
Final Project	300
Total Points	1000

Approximate minimal points required to obtain a given grade are:

	A	B	C	D
+		(875, 900)	(775, 800)	(675, 700)
	[925, 1000]	[825, 875]	[725, 775]	[625, 675]
-	[900, 925)	[800, 825)	[700, 725)	[600, 625)

Note that scores of 599 or lower will result in an F.

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 Thursday. No late homework will be accepted except by prior arrangement or with a documented emergency. Homework assignments are posted on 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.

Mid-term Group Project:
This project will focus on the period of 200-1400 AD. You will be asked to choose a particular mathematical topic to research and present. This project will be done in groups and your presentations will be approximately 5 minutes and will be given in class on the day listed in the schedule.

Timeline:
Students will be required to create a "mathematical" timeline based on reading in the text and the mid-term presentations. Each mathematical event/person should be recorded with a date and a one to two sentence summary of the event (e.g. "The Elements was published"). This timeline should also include at least five major events from general history for each century. If you stay on top of this and do it weekly, it should be no problem. The timeline will be due the last day of class.

Final Project:
You will be given a list of books of mathematical biographies and popular writing on mathematics. You will need to select one book, read it, write a paper on it and give a 5 minute presentation during the time of the final. **The final is THURSDAY MAY 2, 8:00-10:00 A.M.**

Final Exam: Date and Time
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 first two weeks 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.

Some Tips About This Class:

This class moves very rapidly and covers a lot of material. For the best success in this class come to class regularly, stay current with your assignments (cramming won't help) and if you have a question **ASK**.

Monday	Tuesday	Wednesday	Thursday	Friday
7	8 **NO CLASS – MONDAY ON TUESDAY**	9	10 **Introduction** **Story of Maths DVD**	11
14	15 **Babylonian Numbers**	16	27 **Chapter 1**	18
21 **MLK HOLIDAY**	22 **Chapters 1 and 2** **Mid-term project described**	23	24 **NO CLASS** **Teams work on MT Project**	25
28	29 **Chapter 2** **Mid Term Proposals Due**	30	31 **Chapter 3**	1
4	5 **Chapters 3 and 4**	6	17 **Chapter 4**	8
11	12 **Chapter 5**	13	14 **Chapter 5**	15
18	19 **Chapter 6**	20	21 **Chapter 6**	22
25	26 **Chapter 7**	27	28 **Chapter 7**	1
4 **SPRING BREAK**	7 **SPRING BREAK**	8 **SPRING BREAK**	9 **SPRING BREAK**	10 **SPRING BREAK**
11	12 **Mid-Term Presentations**	13	14 **Mid-Term Presentations**	15
18	19 **Non-western Mathematics**	20	21 **Chapter 8**	22
25	26 **Chapter 8**	27	28 **EASTER**	29 **EASTER**
1 **EASTER**	4 **Chapter 9** **Final Book Selected**	5	6 **Chapter 9**	7
8	9 **Chapter 10**	10	11 **Chapter 10**	12
15	16 **Chapter 11**	17	18 **Chapter 11**	19
22	23 **Chapter 12**	24	25 **Chapter 12**	26
29	30	1	2 **FINAL EXAM 8:00-10:00 A.M.**	3