

# Math 274 Fall 2012 Section 1

<b>Time and Place:</b>	MWF 8:30-9:35 a.m. in RS015
<b>Instructor:</b>	Maria Zack, Ph.D.
<b>E-mail:</b>	mzack@pointloma.edu
<b>Office Number:</b>	S222
<b>PLNU Office Hours:</b>	Monday 11:00 a.m. - 12:00 p.m. Tuesday 9:00-10:00 a.m. Wednesday 1:00-2:00 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. The best way to reach me is via email. I look at my email on my smart phone regularly. If you have an emergency (or if a problem is driving you crazy), 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.

**Required Materials:** A scientific calculator is recommended

**Text:** *Multivariable Calculus (7<sup>th</sup> Edition) by James Stewart*

## **Content:**

This is a third course in calculus. The catalog description for this course is: Conceptual development of the calculus of functions of more than one variable supported by the use of a symbolic computer algebra system. Limits and continuity, partial derivatives, chain rule, extreme values, Taylor's theorem, multiple integrals, line and surface integrals, Green's Theorem and Stokes' Theorem.

## **Objectives:**

The goal of this course is to make the student familiar with multivariable calculus and some of the applications of multivariable calculus to the physical world.

## **Learning Outcomes for the Course:**

- 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 apply their mathematical knowledge to solve problems.
- Students will be able to use technology to solve problems.
- Students will be able to speak about their work with precision, clarity and organization.
- Students will be able to write about their work with precision, clarity and organization.
- Students will collaborate effectively in teams.

**Grading:**

The components of the grades:

Homework	150
Projects and Activities	100
Exams (3 at 150 points each)	450
Final	300
Total Points	1000

Approximate minimal points required to obtain a given grade are:

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
+		(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 at the start of class** the next Wednesday. 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.

**Projects and Activities:**

During the semester you will be assigned 4-5 activities or projects that will require group work outside of class. These projects will need to be written up carefully. I will make my expectations clear for each project.

**Exams:**

There are three 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 **FRIDAY DECEMBER 14, 8:00-10:00 a.m.**

**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.

### **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 must activate your PLNU e-mail account if you are not currently using it.

### **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**.

PLNU Schedule MTH274

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26-Aug	27-Aug No Classes	28-Aug Intro & 12.1	29-Aug 12.2 & 12.3	30-Aug	31-Aug 12.3 & 12.4	1-Sep
2-Sep	3-Sep Labor Day	4-Sep	5-Sep 12.5	6-Sep	7-Sep 12.6	8-Sep
9-Sep	10-Sep 13.1 & 13.2	11-Sep	12-Sep 13.2 & 13.3	13-Sep	14-Sep 13.4	15-Sep
16-Sep	17-Sep Review	18-Sep	19-Sep <b>Exam #1</b>	20-Sep	21-Sep Go over test & 14.1	22-Sep
23-Sep	24-Sep 14.1 & 14.2	25-Sep	26-Sep No Class - Project 14.3	27-Sep	28-Sep No Class - Project 14.4	29-Sep
30-Sep	1-Oct Presentations & 14.5	2-Oct	3-Oct 14.5 & 14.6	4-Oct	5-Oct 14.7	6-Oct
7-Oct	8-Oct 14.8	9-Oct	10-Oct 15.1& 15.2	11-Oct	12-Oct 15.3	13-Oct
14-Oct	15-Oct 15.4 and Review	16-Oct	17-Oct <b>Exam #2</b>	18-Oct	19-Oct Fall Break	20-Oct
21-Oct	22-Oct Go over test & 15.5	23-Oct	24-Oct 15.6	25-Oct	26-Oct 15.7	27-Oct
28-Oct	29-Oct 15.8	30-Oct	31-Oct 15.9	1-Nov	2-Nov No Class - Project 15.10	3-Nov
4-Nov	5-Nov No Class - Project 15.10	6-Nov	7-Nov Project Presentations	8-Nov	9-Nov 16.1	10-Nov
11-Nov	12-Nov 16.2	13-Nov	14-Nov 16.3	15-Nov	16-Nov Review & 16.4	17-Nov
18-Nov	19-Nov <b>Exam #3</b>	20-Nov	21-Nov Thanksgiving	22-Nov Thanksgiving	23-Nov Thanksgiving	24-Nov
25-Nov	26-Nov Go over test & 16.4	27-Nov	28-Nov 16.5	29-Nov	30-Nov 16.6	1-Dec
2-Dec	3-Dec 16.7	4-Dec	5-Dec 16.8	6-Dec	7-Dec Review & 16.9	8-Dec
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec <b>Study Session 7:00 p.m.</b>	14-Dec <b>Final Exam 8-10 a.m.</b>	15-Dec