# Math 133 - Pre-Calculus

(3 Semester Hours)

# Point Loma Nazarene University - Fall 2016

Time and Place: TR 5:00-6:15 p.m. LA 102

**Instructor:** Professor Wayne Lee

**Phone Number:** 619-849-2219 (office)

619-335-7170 (cell)

Office Number: Rohr Science 210

**Office Hours (in RS 210):** Tuesday 6:15-7:15 p.m.

Thursday 6:15-7:15 p.m.

My email is **wlee@pointloma.edu**. I will be checking this on a regular basis and this is the most reliable way to reach me other than office hours.

**Textbook**: Pre-calculus with Calculus Previews by Zill and Dewer, (5th Edition)

**Needed Supplies:** Scientific calculator

# **Catalog Course Description:**

An introduction to the functions necessary for the study of calculus with an emphasis on numerical and graphical notions of continuity, limits and derivatives. the following function types are used as examples for the study of the concepts: polynomial, rational, exponential, logarithmic, and trigonometric functions. Prerequisite(s): MTH 113 or equivalent.

# **Learning Outcomes for this Course:**

- 1. Students will develop an ability to graph functions including polynomial and trigonometric.
- 2. Students will develop an ability to solve problems using polynomial, exponential and trigonometric functions.

#### Course Philosophy:

Mathematics requires active participation. Participation means: asking questions, making conjectures and checking them, providing solutions to problems, sharing ideas with classmates.

Grade Criteria		Grade Scale (%)				
Homework Assignments	20%	_	Α	B 87.5-90	C 77.5-80	D 67.5-70
Attendance/Participation 2 Exams (20% each)	10% 40% n 30%	Т	92.5-100	82.5-87.5	72.5-77.5	62.5-67.5
A Comprehensive Final Exam		-	90-92.5	80-82.5	70-72.5	60-62.5

Note that scores of 59.9% or lower will result in an F.

**Homework (20%):** Homework will be assigned every class meeting. A homework assignment is late if it is not received at the start of class on the due date. No late homework will be accepted unless there is a documented emergency; however, the two lowest homework scores will be dropped. Please be sure that your homework is stapled together and the problems are in order. Homework will be

scored on a combination of completeness and correctness. A random selection (the same for all people) of the problems will be graded on any homework assignment.

**Tests (20% each) and Final Exam (30%):** Tests and the Final Exam will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class.

No examination shall be missed without <u>prior consent by me</u> or a well-documented emergency beyond your control. A score of zero will be assigned for an examination that is missed without prior consent or a well-documented emergency beyond your control. The examination schedule is included in the daily schedule. I do not intend to accept excuses such as poor communication with parents, benefactors, sport team sponsors and/or travel agents.

#### 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.

# The Final Exam is COMPREHENSIVE Thursday, December 15<sup>th</sup>, 2016 from 7:30-10:00 p.m.

#### **Cell Phones:**

Turn off any cell phone, pager or things that are distracting while you are in class. Also, do not text or work on other classes while in class (to do so is disrespectful to me and your classmates) and it is not the best use of class time.

## **General Advice:**

The key to success in this class is to attend lectures regularly and do your homework. You learn mathematics by doing it yourself. You should expect to spend approximately two hours outside of class for every one hour in class working on homework and going over concepts. When doing homework, please note it is normal to not be able to do every problem correct on the first attempt. Do not be discouraged, instead seek help.

# **Sources of Help:**

- 1. Me. If you have questions, ask me. See office hours.
- 2. Other classmates. Form study groups! Work together!

#### **University Mission:**

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

# **Department Mission:**

The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

# 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 is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See <a href="http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Class\_Attendance">http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Class\_Attendance</a> in the Undergraduate Academic Catalog.

#### 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:**

If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at <a href="mailto:DRC@pointloma.edu">DRC@pointloma.edu</a>. See <a href="mailto:Disability Resource Center">Disability Resource Center</a> for additional information. For more details see the PLNU catalog:

http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic\_Accommodations

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:**

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic <u>dis</u>honesty 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. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See

http://catalog.pointloma.edu/content.php?catoid=24&navoid=1581#Academic Honesty for definitions of kinds of academic dishonesty and for further policy information.

#### 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. This schedule can be found on the university website and in th course calendar. No requests for early examinations will be approved. 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 consider changing the exam date and time for that particular student.

## **Copyright Protected Materials:**

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

#### **Credit Hour:**

In the interest of providing sufficient time to accomplish the stated course learning outcomes, this class meets the PLNU credit hour policy for a three (3) unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirements can be provided upon request.

# Class Schedule:

Week of	Tuesday	Thursday	
1	No Class	Introduction to the Class	
August 30	(Monday Schedule)	Sections 1.1 and 1.2	
2	Sections 1.3 and 1.4	Sections 1.4 and 1.5	
September 5			
3	Sections 2.1 and 2.2	Sections 2.2 and 2.3	
September 12			
4	Sections 2.4 and 2.5	Sections 2.5 and 2.6	
September 19			
5	Sections 2.7 and 2.8	Sections 2.8 and 2.9	
September 26			
6	Sections 3.1 and 3.2	Sections 3.2 and 3.3	
October 3			
7	Exam #1	Sections 3.4 and 3.5	
October 10			
8	Sections 3.6 and 4.1	Sections 4.1 and 4.2	
October 17			
9	Sections 4.3 and 4.4	Sections 4.4 and 4.5	
October 24			
10	Sections 4.6 and 4.7	Sections 4.7 and 4.8	
October 31			
11	Sections 5.1 and 5.2	Sections 5.2 and 5.3	
November 7			
12	Exam #2	Sections 5.4 and 6.1	
November 14			
13	Section 6.1 and 6.2	Thanksgiving Recess	
November 21			
14	Sections 6.3 and 8.1	Sections 8.1 and 8.2	
November 28			
15	Sections 10.1 and 10.2	Review for Final Exam	
December 5			
16	Comprehensive Final Exam		
December 12 Thursday December 15 <sup>th</sup> , from 7:30-10:00 p.m.			

# **Homework Assignments:**

All Homework is due on Tuesday on the listed week at the beginning of class.

Section	Problems	Due
1.1	2,3,9,12,27,30,37,42,51,62	Week 2
1.2	3,6,8,9,15,22,23,34,55,57(b)	VVEER Z
1.3	2,10,13,22,23,28,29,40,47,55	
1.4	5,6,11,12,19,24,29,43,51,63,69,70	Week 3
1.5	1,2,8,9,1317,21,27	
2.1	3,5,14,17,27,28,39,40,47,56,59,61,63	
2.2	5,6,12,13, 23-32, 37	Week 4
2.3	3,4,7,27,29,33,39,53,55,56	
2.4	11,13,15,25,28,34,35,46,50	
2.5	2,3,7,10,13,14,19,27,34,37,43	Week 5
2.6	5,7,9,11,12,31,34,47,48	
2.7	3,4,5,7,9,17,21,24,43,44,45,57	
2.8	5,7,11,12,21,26	Week 6
2.9	1,3,5,8	
3.1	23,27,29	
3.2	2,3,12,13	Week 7
3.3	2,3,9,10,19,20,41,42	
3.4	4,5,11,17,31,32,48	Week 8
3.5	3.5 4,6	
3.6	3,7,8,27,29,37,38	
4.1	2,3,5,10,14,15,17,18,28,31,39,59,60,82	Week 9
4.2	2,3,12,13,27,28,37,41,42,29,50	

4.3	3,5,8,9,20,21,26,27,34,35,53	
4.4	1,2,5,6,7,23,27,33,36,38,43,	Week 10
4.5	23,24,45,62,75	
4.6	4,5,14,15,24,25,35,40	
4.7	3,5,6,15,18,21,26,33,36	Week 11
4.8	2,3,4,5,6,16,17,33,35,42,43	
5.1	2,3,4,11,12,23,24	
5.2	1,2,11,18,21	Week 12
5.3	3,4,18	
5.4	3,4,24	Week 13
6.1	2,3,4,7,14,15,23,24,35,40	
6.2	1,4,5,14,15,19,20,21,26,31,39,45,59	Week 14
6.3	2,3,7,13,22,23,27	
8.1	1,2,3,4,15,18,46,47,51,56,57	Week 15
8.2	1,7,8,13,26,33,34,35,38,51,52	
10.1	3,4,5,6,7,19,20,23,26,31,32	Week 16
10.2	3,4,5,6,9,10,15,16,29,32,45,51	Final