MTH333-1 Differential Equations
MWF 7:25 am – 8:20 am in room RS236

Instructor	Jesus Jimenez, Ph.D.
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Course Description
Ordinary differential equations, solutions by analytical and numerical methods in the context of real world applications. A brief introduction to partial differential equations and Fourier series.

Required Materials
Textbook: Worldwide Differential Equations with Linear Algebra by Robert McOwen.
CAS: Maxima

Course Goals
Students should gain the ability to properly identify types of differential equations and apply a wide range of analytical methods for solving differential equations. Students should be able to apply the basic numerical methods for solving differential equations.

Examinations
There will be two midterms and a final exam. The final is comprehensive. All or some portion of the exams may be take-home, in which case they will be due on the date of the scheduled exam.

Projects
There will be several projects throughout the semester. These are designed to improve your ability to communicate technical ideas and to give you a chance to apply differential equations to real world problems.

Grading Policies
Grades will be weighted in the following manner:

Projects (**15%**), Homework (**15%**), Midterms (**40%**), Final (**30%**)

Approximate minimal percentages required to obtain a given grade are:

Grading Scale in percentages

	A	**B**	**C**	**D**	**F**
+	(92.5,100]	(82.5,90]	(72.5,80]	(62.5,70]	
	(90,92.5]	(80,82.5]	(70,72.5]	(60,62.5]	[0,57.5]
−	(87.5,90]	(77.5,80]	(67.5,70)	(57.5,60]	

- **Late work**. A written assignment or computer assignment is late if it is not received at the beginning of Class on the due date. Late work will not be accepted. Make-up tests (or the exam) will be given only by arrangement with the instructor for reasons of documented emergency.
- **Format for Projects.** Assignments collected must be prepared in a style suitable for grading. The projects will be graded on clarity and writing quality.
    - the work must be typed
    - the organization must be easy to follow
    - complete solutions must be written for problems (not just answers); solutions must be clearly marked
    - use complete sentences to answer questions

Attendance Policy
There is a strong correlation between grade and attendance. It is your responsibility to attend. If more than 20% of the total number of class meetings is missed for any reason you may be de-enrolled from the course as per the undergraduate catalog.

Academic Accommodations
While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, these students are requested to file documentation during the first two weeks of the semester with the Academic Support Center (ASC), located in the Bond Academic Center. This policy assists the University in its commitment to full compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. Once the student files documentation, the ASC will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual learning needs of the student.

Cheating Policy
A student who is caught cheating on an exam or an assignment will receive a zero on the assignment and may receive an "F" for the semester as per the guidelines in the course catalog. FYI- Cheating consists of using work other than your own and not citing it, storing answers on calculators for exams, obtaining copies of old exams, etc.

You may work on homework for this course in groups, however your answers must show enough variation from the work of others to indicate that it was not merely copied.

	Day	Date	Section	
1	Tuesday	1/14/2014	1.1 and 1.2	
2	Wednesday	1/15/2014	1.2 and 1.3	
3	Friday	1/17/2014	1.4	
4	**Monday**	**1/20/2014**	**MLK**	**NO CLASSES**
5	Wednesday	1/22/2014	1.5	
6	Friday	1/24/2014	1.5 and 1.6	
7	Monday	1/27/2014	2.1	
8	Wednesday	1/29/2014	2.2	
9	Friday	1/31/2014	2.2	
10	Monday	2/3/2014	2.3	
11	Wednesday	2/5/2014	2.3 and 2.4	
12	Friday	2/7/2014	2.4	
13	Monday	2/10/2014	2.5	
14	Wednesday	2/12/2014	2.5	
15	Friday	2/14/2014	2.5 and 2.6	
16	Monday	2/17/2014	2.6	
17	Wednesday	2/19/2014	2.7	
18	Friday	2/21/2014	2.8	
19	Monday	2/24/2014	3.1	
20	Wednesday	2/26/2014	3.1 and 3.2	
21	**Friday**	**2/28/2014**	**Exam 1**	
22	Monday	3/3/2014	3.2	
23	Wednesday	3/5/2014	3.2 and 3.3	
24	Friday	3/7/2014	3.3	
25	**Monday**	**3/10/2014**	**SPB**	**NO CLASSES**
26	**Wednesday**	**3/12/2014**	**SPB**	**NO CLASSES**
27	**Friday**	**3/14/2014**	**SPB**	**NO CLASSES**
28	Monday	3/17/2014	3.4	
29	Wednesday	3/19/2014	3.4 and 3.5	
30	Friday	3/21/2014	3.5	
31	Monday	3/24/2014	7.1	
32	Wednesday	3/26/2014	7.2	
33	Friday	3/28/2014	7.2 and 7.3	
34	Monday	3/31/2014	7.3	
35	Wednesday	4/2/2014	7.4	
36	Friday	4/4/2014	7.5	
37	Monday	4/7/2014	7.5	
38	Wednesday	4/9/2014	7.6	
39	Friday	4/11/2014	Series solutions	
40	**Monday**	**4/14/2014**	**Exam 2**	
41	Wednesday	4/16/2014	Series Solutions	
42	**Friday**	**4/18/2014**	**EB**	**NO CLASSES**
43	**Monday**	**4/21/2014**	**EB**	**NO CLASSES**
44	Wednesday	4/23/2014	PDE	
45	Friday	4/25/2014	PDE	
46	Monday	4/28/2014	PDE	
47	Wednesday	4/30/2014	PDE	
48	Friday	5/2/2014	PDE	
49	Monday	5/5/2014		
50	Wednesday	5/7/2014		
51	**Friday**	**5/9/2014**	**Final Exam**	**7:30 am - 10:00 am**