IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Spring 2021**	Instructor Name:	**Jill Nelipovich**
Course Title & #:	**Math 220**	Email:	**jill.nelipovich@imperial.edu**
CRN #:	**20804**	Webpage (optional):	**Canvas**
Classroom:	Zoom Link – posted in Canvas	Office #:	**Zoom link in Canvas**
Class Dates:	**2/16-6/12**	Office Hours:	**MW: 9:30 – 10:30** **T/TR: 9:30 – 10:00** **T: 6:00 – 6:30 p.m.** **TR: 8:45 – 9:15 p.m.** ***Please text me for other appointment times. I am most always available, including weekends**
Class Days:	**T/TR**	Office Phone #:	**760-355-6297 *Cell # in Canvas**
Class Times:	2:40 – 4:05	Emergency Contact:	**Silvia Murray: 760-355-6201**
Units:	3	Class Format:	Online - zoom

Welcome Students 😊 **The fall semester will be a new experience for all of us. First "assignment" in this class is to stay healthy and exercise frequently. Exercise creates a healthy immune system.**
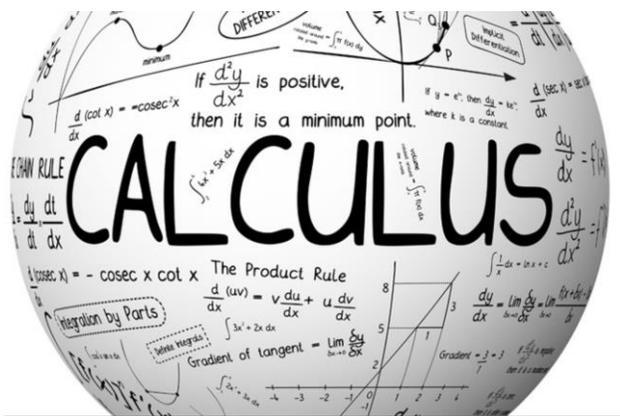
Remember all that trigonometry you learned so well? Well, we get to remember much of that trig!

My job: To be available for you and to help you both learn and succeed in a remote environment.

What does success mean?
- Doing well in this course

    AND

- Succeeding in the next course University…

- "Should I cheat since it is easy to cheat"
  Only if you want to flunk out of the university since you did not learn how to think mathematically!

Course Description

The course is an introduction to ordinary differential equations including both quantitative and qualitative methods as well as applications from a variety of disciplines. Introduces the theoretical aspects of differential equations, including first, second, and higher order differential equations and their applications, establishing when solution(s) exist, and techniques for obtaining solutions, including, series solutions, and singular points, Laplace transforms and linear systems. (C-ID MATH 240) (CSU/UC)

Course Prerequisite(s) and/or Corequisite(s)

MATH 192 with a minimum grade of C or appropriate placement

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. demonstrate the ability to solve a first order differential equation. ILO2, ILO4)
2. demonstrate the ability to use a differential equation to model a real world phenomena. (ILO2, ILO5)
3. demonstrate the ability to find a series solution to a differential equation. (ILO2, ILO4)

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Create and analyze mathematical models using ordinary differential equations.
2. Identify the type of a given differential equation and select and apply the appropriate analytical technique for finding the solution of first order and selected higher order ordinary differential equations.
3. Apply the existence and uniqueness theorems for ordinary differential equations.
4. Find power series solutions to ordinary differential equations.
5. Determine the Laplace Transform and inverse Laplace Transform of functions.
6. Solve Linear Systems of ordinary differential equations..

Textbooks & Other Resources or Links

Nagle, R., Saff, E. and Snider, A. 2017. *Fundamentals of Differential Equations* 9th. Addison Wesley ISBN: 978-0321977069.

Course Requirements and Instructional Methods

How will the class be structured in the online modality?

ONLINE COURSE STRUCTURE

1. Zoom Lectures

2. Video Lectures

    3. Zoom class (optional, but recommended - I will post the zoom class video)

4. Projects/Discussion Boards

5. Online Video Lecture Quizzes and Homework quizzes

6. Online Exams

- You will have a set of class notes that correspond to each chapter:
- Example - Link to Chapter 6.1
- The videos will mostly be between 10 – 15 minutes in length.
- Lecture Quizzes – these will either take place inside the videos or on canvas.
- "Homework" quizzes. I will not collect and grade homework. However, I will provide you with quizzes that are similar to your homework problems relatively frequently 😊

What will I have to do to be successful in an online learning environment?

- It will be imperative you keep up with the course and stay disciplined.
- Dedicate a time each day to watch videos and do homework. It is best if you break it up into multiple small intervals. This gives your brain some rest time.
- Attend our virtual "zoom" T/TR 8:00 – 10:00. We usually stay on for one hour. These are not mandatory and will be recorded.
- Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Course Grading Based on Course Objectives

Video Lecture Quizzes…5%

Homework Quizzes……..5%

Discussions/Projects…. 5%

Exams (3) (Canvas)…….60%

Final Exam…………………25%

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Total …………………………100%

** There are no make-up for exams.

If you miss an exam, you will be provided

a longer final to accommodate for the

missing assessment. ONLY DOCUMENTED

EXCUSED absences will be considered

Course Policies

ATTEND CLASS

PAY ATTENTION WHEN IN CLASS

Keep up with the homework and quizzes

Self-motivation is a must!

Do your homework before the next class session. Attend office hours and/or text when you can make it

Be respectful of your classmates. Show up on time and ready to learn.

Have fun! Remember – this is your first class on the pathway to a STEM degree! Use the opportunity wisely 😊

Academic Integrity

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

How do I show academic honesty and integrity in an online "classroom"?

- **KEEP YOUR PASSWORDS CONFIDENTIAL.**
  - o You have a unique password to access online software like Canvas. Never allow someone else to log-in to your account.
- **COMPLETE YOUR OWN COURSEWORK.**
  - o When you register for an online class and log-in to Canvas, you do so with the understanding that you will produce your own work, take your own exams, and will do so without the assistance of others (unless directed by the instructor).

Examples of Academic Dishonesty that can occur in an online environment:
- Copying from others on a quiz, test, examination, or assignment;
- Allowing someone else to copy your answers on a quiz, test, exam, or assignment;
- Having someone else take an exam or quiz for you;
- Conferring with others during a test or quiz (if the instructor didn't explicitly say it was a group project, then he/she expects you to do the work without conferring with others);
- Buying or using a term paper or research paper from an internet source or other company or taking any work of another, even with permission, and presenting the work as your own;
- Excessive revising or editing by others that substantially alters your final work;
- Sharing information that allows other students an advantage on an exam (such as telling a peer what to expect on a make-up exam or prepping a student for a test in another section of the same class);
- Taking and using the words, work, or ideas of others and presenting any of these as your own work is plagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic	Date or Week	Activity, Assignment, and/or Topic
2/16	Syllabus, 1.1	4/13	Review
2/18	1.2	4/15	**Exam 2**
2/23	1.2, 1.3	4/20	5.1, 5.2
2/25	2.2, 2.3	4/22	5.3, 5.4
3/2	2.3, 2.4	4/27	5.5, 5.6
3/4	2.4, 2.5	4/29	6.1. 6.2
3/9	2.6, Review	5/4	6.3
3/11	**Exam 1**	5/6	7.2, 7.3
3/16	3.2, 3.3	5/11	7.4, 7.5
3/18	3.4, 3.5	5/13	7.6, 7.7
3/23	3.6, 3.7	5/18	7.8
3/25	4.2, 4.3	5/20	**Exam 3**
3/30	4.4, 4.5	5/25	8.1, 8.2
4/1	4.6, 4.7	5/27	**8.3, 8.4**
4/6 (holiday)		5/31	8.5, 8.6
4/8 (Holiday)		6/1	Catch up
		6/7	Review/Final
		6/9	Final (Class Decides)

Subject to change without prior notice