Basic Course Information

Semester:	**Spring 2018**	Instructor Name:	**Jill Nelipovich**
Course Title & #:	**Math 210**	Email:	**jill.nelipovich@imperial.edu**
CRN #:	**20803**	Webpage (optional):	**Canvas**
Classroom:	**2728**	Office #:	**2768**
Class Dates:	**2/12/18-6/8/18**	Office Hours:	**MW: 10:20 – 11:20** **W: 7:20 – 7:50 a.m.** **T: 3:30 – 4:00 p.m.** **Th: 12:30 – 1:30 p.m.**
Class Days:	**MW**	Office Phone #:	**760-355-6297**
Class Times:	8:00 – 10:05	Emergency Contact:	**Math department:** **760-355-6155**
Units:	4		

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. (CSU, UC)

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

Math 194 or equivalent coursework

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 problem solving strategies by identifying an appropriate method to solve a given problem, correctly set up the problem, perform the appropriate analysis and computation, and share their interpretation of the conclusion or the outcome, using correct grammar or in an oral presentation. This outcome will be assessed through selected exercises on exams throughout the semester. (ILO1, ILO2)

Textbooks & Other Resources or Links

Calculus, James Stewart. Early Transcendentals (8th edition). Cengage Learning.

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..

Course Requirements and Instructional Methods

Homework: Homework for the semester is available in the Canvas website. I will not collect your homework. It is expected that you will keep up with the homework. This means that you will complete the homework between class periods. I will hold office hours for homework questions for this class at 7:30 Wednesday mornings (I think it is safe to say no one has class prior). If you should do poorly on an exam and come to my office, I will expect that you are able to show me your completed homework. Do not depend on homework solutions or others to do your homework for you. Copying isn't learning.

Quizzes: Quizzes will either be in class or take-home. If I give an in-class quiz, you will have no more than 10 minutes to complete the quiz and it will come directly from your homework. You may use your homework on the quiz as well. There are no make-ups on quizzes. Two quizzes will be dropped.

Project: Projects will be completed in groups. These will consist of more challenging math problems and MathLab assignments.

Exams: There are four exams. If you can do the homework and the material we discussed in class, you will be prepared for the exam. I will give definitions and some theorems on the exams as well. Make certain to check canvas for a list of definitions and theorems you should know. There are no make-up exams. If you should miss an exam for an emergency, please make sure to get a doctors' note. Generally, I will give a longer, more comprehensive final.

Office Hours: Take advantage of them – especially the homework question reviews.

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. NetTutor is available to IVC students in Canvas. It is a free service!

Course Grading Based on Course Objectives

1. Exams – 4 exams (60%)   A: $90\% \leq x \leq 100\%$
2. Final Exam (25%)   B: $80\% \leq x < 90\%$
3. Quizzes (10%)   C: $70\% \leq x < 80\%$
4. Projects (5%)   D: $60\% \leq x < 70\%$ F: $x < 60\%$

Attendance

- I know, I know….this class starts at 8:00 a.m. It is great to be on time because I may give a quiz at the beginning of class.
- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student who has continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices ***must be turned off and put away during class***, unless otherwise directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and

(11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

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.

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- Math Lab is an excellent resource. It is located by the gym and across from the track.
   There are study rooms and accessible computers.
                M – Th: 8:00 a.m. – 9:00 p.m.
                  Fri: 8:00 a.m. – 5:00 p.m.
                  Sat: 8:00 a.m – 1:00 p.m.
- CANVAS LMS. Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: Canvas Student Login. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- Learning Services.   There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.

- Library Services.   There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.
- **Student Health Center**. A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services**. Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 or in the building 1536 for appointments or more information..

Veteran's Center

The mission of the IVC Military and Veteran Success Center is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

Extended Opportunity Program and Services (EOPS)

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid

assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, lourdes.mercado@imperial.edu.

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

 To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, alexis.ayala@imperial.edu.

Student Equity Program

- The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.
- The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC General Catalog.

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC Library Department provides numerous Information Literacy Tutorials to assist students in this endeavor.

Imperial Valley College Clubs

And school cannot just be about academics, it's also important to socialize and meet new people. We offer many clubs on campus, and I encourage you to get involved. There will be booths in the main quad area during the first week of classes to learn more about all of our extra-curricular activities.

- Stem Club
- Chemistry Club
- Math Club
- LGBTQ Club
- Cross-country club
- …among many others…

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic
Week 1 Feb 12 - 16	12.1 and 12.2 12.3, 12.4
Week 2 Feb 19 - 23	Holiday 12.4 and 12.5
Week 3 Feb 26 – Mar 2	12.5 and 12.6 Review
Week 4 Mar 5- 9	Exam I 13.1
Week 5 Mar 12 - 16	13.2 13.3
Week 6 Mar 19 - 23	13.4 Review
Week 7 Mar 26 - 30	Exam 2 14.1, 14.2
Spring Break	
Week 8 Apr 9 - 13	14.3 14.4
Week 9 Apr 16 - 20	14.5 14.6
Week 10 Apr 23 - 27	14.7 14.8
Week 11 Apr 30 – May 4	Review Exam 3
Week 12 May 7 - 11	15.1, 15.2 15.3, 15.4
Week 13 May 14 - 18	15.5, 15.6 16.1, 16.2
Week 14 May 21 - 25	16.3, 16.4 Review
Week 15 May 28 – Jun 1	Holiday Exam 4
Week 16 Jun 4 - 8	Review Final

Tentative, subject to change without prior notice

Anticipated Homework Schedule

**Due dates subject to change with prior notice

Section	Homework	Due Date
12.1	3, 5, 7, 9, 11a, 12b, 15, 19, 23, 27, 29, 31, 37, 43, 45	2/14
12.2	3, 4(a-d), 5(a-f), 7, 9, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41	2/21
12.3	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 39, 41, 43, 45, 47, 49, 51, 55	2/26
12.4	1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 47, 53	2/26
12.5	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 57, 59, 53, 65, 69, 71, 73, 79, 81	2/28
12.6	3, 5, 9, 11, 13, 5, 17, 19, 31, 33, 35, 37, 39, 43, 45, 47	2/28
3/5	Exam 1	
13.1	1,3, 5 , 7, 9, 11, 13, 15, 178, 19, 27, 29, 31, 33, 35, 37, 43, 45, 49	3/12
13.2	3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 25, 27, 29, 31, 35, 37, 39, 43, 49	3/14
13.3	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 35, 37, 39, 43, 47, 49, 55	3/19
13.4	2, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 37, 39, 41, 45	3/21
3/26	Exam 2	
14.1	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 31, 35, 39, 1, 45, 47	4/9
14.2	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 25, 27, 29,, 31, 33, 35, 37, 39, 41	4/9
14.3	3, 5, 7, 9, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 63, 65, 67, 73	4/11
14.4	1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 25, 27, 29, 31, 33, 35	4/16
14.5	1, 3, 5, 7, 9, 11, 13, 17, 19, 21, 23, 25, 27, 29, 31, 35, 37, 39, 43	4/18
14.6	5, 7, 9, 11, 13, 15, 17, 19, 231, 23, 25, 27, 29, 31, 33, 35, 41, 43, 45, 49, 55, 59	4/23
14.7	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27.29, 31, 33, 35, 37, 41, 43, 45, 47, 49, 51	4/25
14.8	3, 5, 7, 9, 11, 13, 17, 19, 21, 23, 25, 31, 33, 35, 45, 47	4/30
5/2	Exam 3	
15.1	3, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 41, 47, 49	5/9
15.2	1, 3, 5, 7, 9, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 35, 37, 39, 45, 47, 49, 51, 53, 55, 57, 59	5/9
15.3	5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35	5/14
15.4	3, 5, 7, 9, 13, 17, 21, 27	5/14
15.5	1, 3, 5, 7, 9, 11, 13	5/16
15.6	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 25, 27, 29, 35, 37, 39, 43, 47	5/21
16.1	1, 3, 5, 7, 9, 21, 23, 33	5/21
16.2	1, 3, 5, 7, 9, 11, 13, 15, 19, 21, 23, 25, 33, 41	5/23
16.3	3, 5, 7, 9, 13, 15, 17, 19, 23, 29, 31, 33	5/23
16.4	1, 3, 5, 7, 9,. 11, 13, 15, 17, 21	5/28
5/30	Exam 4	
6/6	Final Exam	