Basic Course Information

Semester	**Spring 2014**	Instructor Name	**Mr. Voldman**
Course Title & #	**Math 210 (Calculus III)**	Email	**alex.voldman@imperial.edu**
CRN #	**20160**	Webpage (optional)	
Room	**403**	Office	**Room 2764**
Class Dates	**01/21/14-05/16/14**	Office Hours	**MW 11:40-13:10, TTH 12:45-1:15**
Class Days	**MW**	Office Phone #	**760-355-6299**
Class Times Units	**15:40-18:10** **5**	Office contact if student will be out or emergency	**760-355-6155, 760-355-6201**

Course Description

Concepts dealing with partial differentiation, multiple integration, vectors, and vector analysis.

Student Learning Outcomes

1. Write the equations of lines and planes in three dimensions (ILO2)
2. Differentiate and integrate vector-valued functions (ILO2)
3. Use rectangular coordinates to set up and evaluate double and triple integrals (ILO2)
4. Find partial derivatives of functions of two or more independent variables. (ILO2)
5. Apply the chain rule for functions of more than one variable. (ILO1, ILO2)

Course Objectives

1. Demonstrate a broad understanding of the basic operations with vectors in various coordinate spaces and a variety of 3-dimensional figures.
2. Demonstrate their knowledge of vectors to differentiation and integration of vector-valued functions.
3. Demonstrate the use of functions of several variables and apply techniques to relevant situations.
4. Demonstrate an understanding of double and triple integrals and the ability to solve problems when dealing with applications of multiple integrations.
5. Evaluate and demonstrate knowledge of diverse topics in vector analysis.

Textbooks & Other Resources or Links

Stewart, James (2012). *Calculus* (7th/e). Brooks/Cole. ISBN: 978-0-538-49781-7

Course Requirements and Instructional Methods

Homework (Online Assignments): You will need to log into https://imperial.blackboard.com/; there, you will find the homework problems, along with projects and project tutorial assignments.

Project
Purpose: To introduce technology (MATLAB)
Place to work on the project: MATHLAB (Building 2500)

No late project will be accepted!

Exams
Purpose: To review the material introduced in class and to evaluate your understanding of the material covered in the course. There will be no make-up exams given. Zeros will be given for all missed tests.

Final Exam (comprehensive)

Office Hours
Your professor urges you to avail yourself of his/hers individual instruction during office hours. Do not wait until you are in trouble. If you have been absent or late to class, please read the lesson you missed and come to his/her office prepared with questions.

Course Grading Based on Course Objectives

Grade Distribution

Project	Exams	Final
100 points	400 points	200 points

Project	**10%**
Exams	**60%**
Final	**30%**

Attendance

- 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 whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. If you are 10 minutes late you will be marked absent. Do not make doctor, counseling, or any appointments during class time. Leaving during lecture will be considered an unexcused absence. If you have to leave anytime during class, other than established break times, you must inform your instructor.
- 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.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- 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. Disruptive and inconsiderate behavior will not be tolerated! Absolutely no talking during lecture unless you have questions! Respect your classmates and your instructor.

- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Academic Honesty

- Plagiarism is to take and present 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 correctly 'cite a source', 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, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.

  Anyone caught cheating or 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 School 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) use of a commercial term paper service

Additional Help

- Me: Office Hours; just walk-in and get help.
- Study Guides: The bookstore has textbooks for sale
- Blackboard support center: http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543
- Learning Labs: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Learning Services (library). Please speak to the instructor about labs unique to your specific program
- Library Services: There is more to our library than just books. You have access to tutors in the learning 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 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. We now also have a fulltime mental health counselor. For information see http://www.imperial.edu/students/student-health-center/. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762

Information Literacy

Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/

Anticipated Class Schedule / Calendar

Date or Week	Activity, and/or Assignment	Material, and/or Topic
Week 1 January 21-25	**Monday-Holiday** Syllabus & Orientation MATLAB Orientation Chapter 12, Sections 12.1-12.2	3D-coordinate systems and vectors
Week 2 January 27-31	Chapter 12 Sections 12.3-12.4, 12.5	The dot and the cross products Equations of lines and planes
Week 3 February 3-8	Chapter 12 Section 12.6 **Exam I -Wednesday**	Cylinder and quadratic surfaces
Week 4 February 10-16	Chapter 13 Sections 13.1-13.2 Section 13.3	Vector functions, space curves, derivatives of vector functions, Arc length and curvature
Week 5 February 17-22	**Monday-Holiday** Chapter 13 Sections 13.4	Vector functions, velocity and acceleration, applications
Week 6 February 24-28	**Exam II-Monday** Chapter 14 Sections 14.1-14.2 Section 14.3-14.4	Functions of several variables, limits and continuity, Partial derivatives, tangent planes
Week 7 March 3-8	Chapter 14 Sections 14.5-14.6	The Chain rule, Directional derivatives and the gradient vector
Week 8 March 10-15	Chapter 14 Sections 14.7-14.8	Maximum and minimum values, Lagrange multipliers
Week 9 March 17-22	Exam III-Monday Chapter 15 Sections 15.1-15.3	Double integrals over rectangles and over general regions
Week 10 March 24-28	Chapter 15 Sections 15.4	Double integrals in polar coordinates

Week 11 April 1-4	Chapter 15 Section 15.7	Triple Integrals
Week 12 April 7-12	Chapter 15 Section 15.8	Triple integrals in cylindrical coordinates
Week 13 April 14-19	Chapter 16 Sections 16.1-16.2 **Exam IV-Wednesday**	Vector fields and line integrals
April 21-26	**Spring Break**	
Week 14 April 28-May 3	Chapter 16 Sections 16.3-16.4	The fundamental theorem for line integrals, Green's Theorem
Week 15 May 5-10	Chapter 16 Sections 16.5 **Project submission - May 8 (Thursday)**	Curl and Divergence Review
Week 16 May 12-16	**Final Exam (To be announced)**	

Note: I reserve the right to change this schedule with notification to students