Basic Course Information

| Semester: | Spring 2017 | Instructor Name: | Jeff Burt |
|-------------------|----------------------------|---------------------|--|
| | Calculus w/ Applications - | | - |
| Course Title & #: | Math 170 | Email: | jeff.burt@imperial.edu |
| CRN #: | 20805 | Webpage (optional): | N/A |
| Classroom: | 1307 | Office #: | 2765 |
| Class Dates: | 2/13/17-6/9/17 | Office Hours: | M/W 1:50 – 2:50pm T/Th 9:15 – 10:15am |
| Class Days: | T-Th | Office Phone #: | (760)355-6489 |
| Class Times: | 2:00pm-4:05pm | Emergency Contact: | (760)355-6155 |
| Units: | 4 | | |

Course Description

In this course, students will prepare for courses for which calculus is recommended and/or required, and study the ideas and concepts of advanced mathematics as applied to a modern computerized society. Topics covered include pre-calculus concepts, functions, differentiation, integration, differential equations, and functions of several variables. (CSU) (UC credit limited – see a counselor.)

Student Learning Outcomes

Upon successful completion of this course, a student will:

1. Demonstrate an understanding of the relationship between slope, average rate of change, instantaneous rate of change, and the derivative. (ILO2)

2. Calculate limits, derivatives and integrals for polynomial, rational, exponential and logarithmic functions (ILO2)

3. Use differentiation and integration techniques to solve problems from business, economics, social science and life science. (ILO1, ILO2, ILO4)

4. Use the derivative to analyze and aid in graphing functions as well as solving optimization and related rate problems. (ILO1, ILO2)

Course Objectives

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

1. Demonstrate an understanding and comprehension of basic ideas and elementary concepts of algebra.

2. Demonstrate an understanding of functions and intuitive understanding of limits.

3. Demonstrate an understanding and a working knowledge of the derivative.

4. Demonstrate proficiency in problem solving when dealing with applications of differentiation.

5. Distinguish the various approaches when solving integration problems.

6. Demonstrate the ability to solve problems in a step-by-step manner when dealing with application of integration.

7. Demonstrate an understanding of logarithmic and exponential functions, and differential equations, and their use in applications.

8. Analyze functions of several variables.

Textbooks & Other Resources or Links

1. Required: Calculus with Applications, Brief Version, 10e by Lial, Greenwell, and Ritchey. ISBN-13: 978-0321748577

2. You should at least have a scientific calculator, but a basic graphing calculator such as the ti-83/84 that we rent on campus will work well. Make sure that your calculator cannot do symbolic manipulation. Those calculators will not be allowed on exams.

Course Requirements and Instructional Methods

The goal of this course is for you to gain the necessary skills and knowledge to do well, and improve your mathematical abilities, so you are able to succeed in future courses. My responsibility is to help you in any way I can to accomplish these goals, however it is your responsibility to be committed to your own success and keep up with the pace of the class. To do so you need to complete assignments on time and **please** ask questions when you have them.

<u>Out of Class Assignments</u>: 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 <u>and</u> two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Course Rules:

1) Late work is not accepted. If you are going to be gone, contact me **before** the absence to make arraignments.

2) There are **no** make-up tests.

3) It is your responsibility to drop or withdraw the class. Failure to do so will result in a regular grade (most probably an F).

Course Grading Based on Course Objectives

There will be daily quizzes on the assigned homework that will average 100 points at the end of the semester. The algebra review mini test is worth 30 points. There will be three exams worth 100 points. The final exam is comprehensive and worth 150 points. There are **no make-ups**, so if you are going to be absent please let me know beforehand to make arrangements.

Grading: You need at least 406 combined points for a 'C' grade. It is broken down as follows

| Quizzes | 100 points |
|---------|------------|
| Exams | 330 points |
| Final | 150 points |
| Total | 580 points |

So that means every 58 points is a letter grate. 580-522 = A; 521-464 = B; 463- 406 = C, 405 - 348 = D, 347 - 0 = F

Attendance, class participation and a subjective instructor's interpretation of work may be used in assigning a final grade to borderline cases.

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 <u>General Catalog</u> 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. 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

- <u>Electronic Devices</u>: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- <u>Food and Drink</u> are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- <u>Disruptive Students</u>: 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 <u>General Catalog</u>.
- <u>Children in the classroom</u>: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

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.

- <u>Plagiarism</u> 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.
- <u>Cheating</u> 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 <u>General Catalog</u> 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.

- <u>Blackboard Support Site</u>. The Blackboard Support Site provides a variety of support channels available to students 24 hours per day.
- <u>Learning Services</u>. There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your <u>Campus Map</u> for the <u>Math Lab</u>; <u>Reading</u>, <u>Writing & Language Labs</u>; and the <u>Study Skills Center</u>.
- <u>Library Services</u>. There is more to our library than just books. You have access to tutors in the <u>Study Skills Center</u>, 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 <u>Disabled Student Programs and Services</u> (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.

- <u>Student Health Center</u>. 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 <u>Student Health Center</u> at 760-355-6128 in Room 1536 for more information.
- <u>Mental Health Counseling Services</u>. Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC <u>Mental Health Counseling Services</u> at 760-355-6196 in Room 2109 for more information.

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 <u>General Catalog</u>.

Information Literacy

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

| l Class Schedule/ | Day 1 | Day 2 |
|-------------------|----------------------|--------------|
| Week 1 | First day of class | Chapter 1 |
| 2/13 - 2/17 | 1 II St day of class | |
| Week 2 | Algebra Review | 2.1,2.2,2.3 |
| 2/20 - 2/24 | mini-test | 211)212)210 |
| Week 3 | 2.4,2.5,2.6 | 3.1,3.2 |
| 2/27 - 3/3 | , -, - | - ,- |
| Week 4 | 3.3 | 3.4 |
| 3/6 - 3/10 | | - |
| Week 5 | 3.5, review | Exam 1 |
| 3/13 - 3/17 | | |
| Week 6 | 4.1, 4.2 | 4.3, 4.4 |
| 3/20 - 3/24 | | |
| Week 7 | 4.5 | 5.1, 5.2 |
| 3/27 - 3/31 | | |
| Week 8 | 5.3, 5.4 | 6.1, 6.2, |
| 4/3 - 4/7 | | |
| Week 9 | 6.3,6.4, | 6.5 |
| 4/10 - 4/14 | | |
| Week 10 | Spring Break | Spring Break |
| 4/17 - 4/21 | | |
| Week 11 | 6.6, review | Exam 2 |
| 4/24 - 2/28 | | |
| Week 12 | 7.1 | 7.2,7.3 |
| 5/1 - 5/5 | | |
| Week 13 | 7.4 | 7.5,7.6 |
| 5/8 - 5/12 | | |
| Week 14 | 8.1,8.2 | 8.3,8.4 |
| 5/15 - 5/19 | | |
| Week 15 | 9.1 | 9.2 |
| 5/22 - 5/26 | | |
| Week 16 | 9.2, 9.3 | Exam 3 |
| 5/29 - 6/2 | | |
| Week 17 | Review | Final Exam |
| 6/5 - 6/9 | | |

Tentative, subject to change without prior notice