

### Basic Course Information

Semester	<b>Spring 2019</b>	Instructor's Name	<b>Caroline Bennett</b>
Course Title & #	<b>Math 170: Introductory Calculus with Applications</b>	Instructor's Email	<b>caroline.bennett@imperial.edu</b>
CRN #	<b>20805</b>	Webpage	<b>N/A</b>
Room	<b>Building 2700; Room 2728</b>	Office	<b>Building 2700; Room 2765</b>
Class Dates	<b>2/12/19 – 6/06/19</b>	Office Hours	<b>Mon/Wed 1:30 – 2:30 pm Tues/Thurs 12:00 – 1:00 pm</b>
Class Days	<b>Tuesday / Thursday</b>	Office Phone #	<b>(760) 355 – 6124</b>
Class Times	<b>1:00 – 3:05 pm</b>	Who students should contact if emergency or other absence	<b>(760) 355 – 6155</b>
Units	<b>4.0</b>		<b>(760) 355 – 6201</b>

### Course Description

This course presents a study of the techniques of calculus with emphasis placed on the application of these concepts to business management related problems. Students take this course to prepare for courses for which calculus is recommended and/or required, as well as to study the ideas and concepts of advanced mathematics as applied to a modern computerized society. Topics covered include pre-calculus concepts, applications of derivatives and integrals of functions including polynomials, rational, exponential, and logarithmic functions, differential equations, and functions of several variables. (CSU) (UC credit limited – see a counselor.)

### 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)

### Course Objectives

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

1. Find the derivatives of polynomial, rational, exponential, and logarithmic functions.
2. Find the derivatives of functions involving constants, sums, differences, products, quotients, and the chain rule.
3. Sketch the graph of functions using horizontal and vertical asymptotes, intercepts, and first and second derivatives to determine intervals where the function is increasing and decreasing, maximum and minimum values, intervals of concavity, and points of inflection.
4. Analyze the marginal cost, profit, and revenue when given the appropriate function.
5. Determine maxima and minima in optimization problems using the derivative.
6. Use derivatives to find rates of change and tangent lines.
7. Use calculus to analyze revenue, cost, and profit.
8. Find definite and indefinite integrals by using the general integral formulas, integration by substitution, and other integration techniques.
9. Use integration in business and economics applications.
10. Analyze functions of several variables.

## Textbooks & Other Materials

**MYMATHLAB ACCESS CODE (required):** This comes as an insert if you buy a new text packaged with a code. Otherwise, you may purchase an access code online or at the IVC Bookstore. **A handout with instructions on how to register with MyMathLab is provided on Canvas.** **Course ID: bennett03119**

**TEXT (recommended):** Since MyMathLab includes full access to the e-book, buying a physical textbook is **not required**. If you wish to purchase a physical book, it is:

*Calculus with Applications, Brief Version, 11e* by Lial, Greenwell, and Ritchey. ISBN-13: 978-0133886832

**CALCULATOR:** A graphing calculator, such as the TI-83+, is recommended, but not required. You should at least have a scientific calculator. Students may NOT share calculators during exams. **Graphing calculators and cell phones are NOT permitted during exams.**

## Course Requirements and Instructional Methods

**HOMEWORK** should always be taken seriously in a math class. Math is a skill that you can become good at by **practicing it**. Coming to class and taking good notes is important, but doing homework is what deepens your understanding and sharpens your skills. **Repetition “makes it stick”**. Homework also helps you assess your own problem areas. When you struggle with homework problems, it will help you to ask more informed questions during the following class (instead of just saying “I’m lost” or “I can’t do this”), so that I or a tutor can better help you.

Online homework with MyMathLab is used in this course. You are expected to keep up with this online practice on a regular basis and seek help when you need it. Exam problems will be based off of online homework problems; therefore, the online homework provides you with vital practice. Some graded homework projects will be assigned in addition to the MyMathLab. You may work in groups on the projects. The physical textbook also offers practice problems (which I may suggest or cover in class upon request), with answers to the odd exercises provided in the back. Although **only the online homework and assigned projects are graded and recorded**, the text’s problems offer an additional (optional) source of practice.

Math is best learned when it is practiced **regularly**. Our twice-a-week format is not ideal for learning math. Therefore, **it is an extremely bad idea to wait until the weekend to start your homework**. One of the best things you can do is reserve times slots in your weekly schedule that will be devoted to working on math (**every** week – not just when an exam is coming up).

In fact, you should always begin your homework as soon as possible after each class, especially if math is a difficult subject for you. Here are some further tips:

- 1) Form a study group and work homework problems together with classmates.  
The Math Lab is a good place to study and work together with classmates.
- 2) If there is a particular homework problem you would really like to see in class, ask me before or at the beginning of class. I will try to accommodate requests if there is time; if there is not sufficient time, then we can arrange to meet after or outside of class for help.
- 3) Take advantage of the free tutoring resources on campus (see last page for details).

**ALGEBRA REVIEW MINI-TEST:** A “mini-test” (50 points = one third of a regular exam) will take place on Thursday, Feb. 21 (fourth class meeting). The purpose of this is to encourage students to refresh some very crucial prerequisite skills that are necessary to succeed in the material that we will be covering this semester. For students who may have some algebraic deficiencies, a supply of practice problems (not for credit) will be made available in MyMathLab. **It is extremely difficult, if not impossible, to succeed in Calculus without having the necessary fundamental algebra skills beforehand. It is the responsibility of the student to assess and sharpen these algebra skills, if need be, throughout the semester.**

**EXAMS** closely reflect the material covered in class and on the homework. A tentative exam schedule is provided in this syllabus; however, exam dates (with the exception of the final exam) may be subject to change, in accordance with the pace of the class. If an exam date is changed, you will be notified sufficiently in advance, both in class and on the Canvas announcements page.

**HOMEWORK QUIZZES:** There may be some quizzes sprinkled throughout the semester; these will be announced in class and on Canvas. They are not listed in the syllabus calendar, as their dates are dependent upon the pace and progress of the class. These are called “homework quizzes” because they come directly from the MyMathLab homework problems. Therefore, the best way to prepare for them is to stay caught up with your MyMathLab homework. These quiz points are included under your “Class Work” points.

**Homework quizzes are open-note.** You can use your lecture notes and/or homework scratch work, but NOT a textbook. You may also work in groups of up to 4 students (quizzes only – NOT during exams). All group members from each group receive the same quiz score. Quizzes almost always take place during the last part of class, and may not be taken early (don’t even ask!). **There are no make-up quizzes. If you are absent or leave class early for ANY reason, then you miss the quiz. Period.**

**MAKE-UPS:** There are no make-up exams. Do not miss a scheduled exam. No exam scores will be “dropped”. However, your lowest exam grade may be replaced with your final exam grade if that improves your overall grade.

**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. The Western Association of Schools and Colleges (WASC) has adopted a similar requirement. **Since this is a 4 unit class, this means that you should expect and plan for a minimum of 8 hours to be spent working on calculus *outside of class* each week.**

**PACE:** This course will move rapidly. **Because we only meet twice per week, we must cover a lot of material during each class period.** It is critical that you stay caught up, avoid missing class, avoid falling behind, stay organized, ask questions, and get additional help whenever necessary. Tutoring help is available!

**Course Grading Based on Course Objectives**

<u>EVALUATION:</u>		<u>GRADING SCALE</u>	
Algebra Review Mini-Test	50		
Class Work & Group Quizzes	125	900 – 1000	A
MathXL Homework	100	800 – 899	B
Projects	75	700 – 799	C
3 exams × 150 points each	450	600 – 699	D
Final Exam (cumulative)	+ 200	Below 600	F
	1000		

**The grade that is earned, according to the point scale above, is the grade that will be received. Grades are not subjective. Grades are not negotiable. All students will be treated equally.**

**NOTE: The final exam in this course is both cumulative and mandatory for all students.**

**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. 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.

Any in-class activities or worksheets that are missed due to an absence CANNOT be made up. Furthermore, on quizzes and exams you are responsible for all material covered in class, regardless of whether or not you were here. Therefore, if you do miss class, you should obtain any missed worksheets or other materials from the instructor, and obtain lecture notes from a classmate.

Attendance is crucial to your success in this course. You are expected to attend every class and **remain during the entire class. Leaving class early without prior consent from the instructor counts as an absence, and** costs points. If you cannot commit to being in class during the regularly scheduled time (Tuesday/Thursday, 1:00 – 3:05 pm), then you should drop this class and take it at another time. If you have 4 unexcused absences, I may drop you from the course.

Although you may be dropped for excessive absences, you should never *assume* that the instructor has dropped you if you simply stop showing up. It is your responsibility to ensure that you have dropped through WebSTAR by the deadline (May 11, 2019) to receive a “W” instead of a failing grade.

## Classroom Etiquette

**School is place to act with respect.** Remember that different students have different paces and styles of learning, and that all students have the right to ask questions in class. As a student, you have the right to a safe and comfortable learning environment. You do not have the right to impinge on other students' learning. Talking or other disruptive classroom behavior WILL affect your grade.

Students who disrupt or interfere with a class may be sent out of the room and required to meet with the Campus Disciplinary Officer before returning to continue with coursework. For further information, refer to the Standards of Student Conduct on pages 43-44 of the 2016-2017 General Catalog.

### Class work points:

- You don't receive points just for attending class or lose points just for missing class, per se. However, **several in-class activities will be worth points which you can only receive if you are in class that day.** Any activities you miss by being absent CANNOT be "made up".
- Unlike exam points and homework points, **class work points can be both earned and lost.** Points are lost through disrespectful or disruptive behavior such as talking in class, leaving class early, answering cell phones, etc.

### Best ways to lose Attendance & Class Participation points during class:

- Pack up and leave during lecture.
- Wear headphones/earbuds in class.
- Use your phone during class.
- Talk with classmates during lecture.
- Dishonesty (e.g., putting names of absent classmates on group work or quizzes).

### Cell phones and other electronic devices:

- Turn OFF all cell phones and electronic devices before class, and especially during exams.
- Cell phones that are on "vibrate" mode are STILL DISRUPTIVE.
- Leaving the room to answer cell phones that are in "silent" mode is disruptive and unacceptable. Take care of private calls/texting on your own time.
- Students caught texting during class may be asked to leave class, with an unexcused absence given for that day. Simply put, **if you do not plan to participate and engage in class, then do not bother coming to class.**
- The use of text messaging or other electronic devices for cheating on tests will be treated with the same seriousness as any other form of cheating (see ACADEMIC HONESTY below). Cell phones may not be used as calculators during exams.

## 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 (!!!)].

## 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.

## 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

- The consequences of academic dishonesty are severe and may include the possibility of expulsion. For further information, refer to the Standards of Student Conduct on p. 34 and pp. 43-44 of the 2016-2017 General Catalog.

### 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.

- **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. If you feel you need to be evaluated for educational accommodations, the DSP&S office is located in Building 2100, telephone 760-355-6313.

### 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.

## 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](mailto: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](mailto:alexis.ayala@imperial.edu).

## Student Rights and Responsibilities

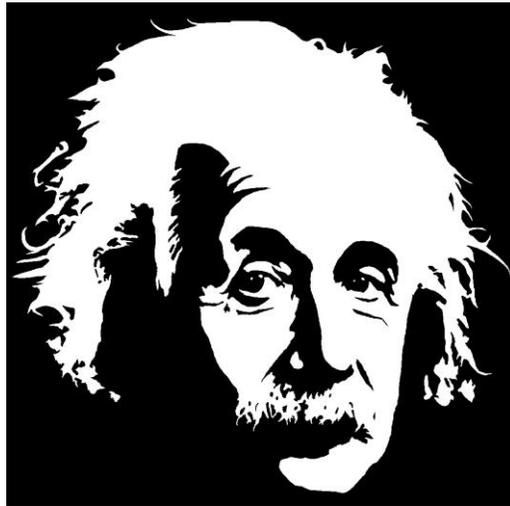
Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at [http://www.imperial.edu/index.php?option=com\\_docman&task=doc\\_download&gid=4516&Itemid=762](http://www.imperial.edu/index.php?option=com_docman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

## 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.



***“Never regard your study as a duty, but as the enviable opportunity to learn to know the liberating influence of beauty in the realm of the spirit for your own personal joy and to the profit of the community to which your later work belongs.” -- Albert Einstein***

**Anticipated Class Schedule / Calendar**

(\*With the exception of the Final Exam, these dates are tentative and subject to change with advance notice!)

Tuesday	Thursday	Weekly Goals
2/12 <b>First day of class</b>	2/14	Welcome, review (Ch's 1 & 2)
2/19	2/21 <b>Algebra Review Mini-Test</b>	Review; Start Ch. 3
2/26	2/28	Ch. 3
3/5	3/7	Ch. 3; Start Ch. 4
3/12	3/14	Ch. 4
3/19	3/21 <b>Exam 1</b>	Ch. 4; review, exam
3/26	3/28	Start Ch. 5
4/2	4/4	Ch. 5
4/9	4/11	Ch. 5, 6
4/16	4/18 <b>Exam 2</b>	Ch. 6; review, exam
4/23 😊 <b>S P R I N G</b>	4/25 <b>B R E A K</b> 😊	
4/30	5/2	Ch. 7
5/7	5/9	Ch. 7
5/14	5/16	Ch. 7,8
5/21	5/23 <b>Exam 3</b>	Ch. 8; review, exam
5/28	5/30	Ch. 8, 9
6/4 Final Exam review	6/6 <b>FINAL EXAM</b>	Review; Final

**IMPORTANT DATES AND DEADLINES:**

- February 23 Last day to withdraw without owing fees and/or be eligible for a refund  
Last day to add a class
- February 24 Last day to withdraw without course appearing on transcripts (without receiving a "W")
- May 11 Last day to withdraw and receive a "W"
- June 6 Final Exam (comprehensive)

**ON-CAMPUS TUTORING RESOURCES:**

**Math Lab**  
Building 2600  
(760) 355 – 6187 (Rosalio Marin)

**Study Skills Center**  
Located in the Library  
(760) 355 – 6384 (Josue Verduzco)

**HOURS OF OPERATION:**

**HOURS OF OPERATION:**