

Basic Course Information

Semester:	Spring 2024	Instructor Name:	Caroline Bennett
Course Title & #:	Math 170: Introduction to Calculus with Applications	Email:	caroline.bennett@imperial.edu
CRN #:	20412	Webpage (optional):	N /A
Classroom:	Building 2700, Room 2728	Office #:	Building 2700, Room 2765
Class Dates:	2/13/24 – 6/06/24	Office Hours:	Mon/Wed: 4:30 – 6:00 pm Tues/Thurs: 3:30 – 4:00 pm
Class Days:	Tues / Thurs	Office Phone #:	(760) 355 – 6124
Class Times:	1:00 pm – 3:30 pm	Emergency Contact:	(760) 355 – 6155
Units:	4.0	Class Format:	Face-to-Face (on campus)

Course Description

This course presents a study of the techniques of calculus with emphasis placed on the application of these concepts to business and 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.

(C-ID: MATH 140) (CSU, UC credit limited. See a counselor.)

Course Prerequisite

MATH 150 - with a grade of "C" or better.

Textbooks & Other Resources or Links

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: bennett94062**

CALCULATOR (REQUIRED): A **scientific calculator** is required. Graphing calculators may be used on homework and on in-class activities. Students may NOT share calculators during exams. **Graphing calculators and cell phones are NOT permitted during exams.**

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

Lial, Greenwell, Ritchey. 2022. *Calculus with Applications*. 12th Pearson. ISBN: 9780137342402

Course Grading Based on Course Objectives

EVALUATION:

In-Class Activities/Quizzes	100
MyMathLab Homework	150
Projects	100
3 Exams × 150 points each	450
Final Exam (cumulative)	<u>+ 200</u>
	1000

GRADING SCALE

900 – 1000	A
800 – 899	B
700 – 799	C
600 – 699	D
Below 600	F

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 assessed by the same standards.

NOTE: Grades are NOT posted in Canvas.

NOTE: MyMathLab will automatically display a current “percentage” based upon the online work that you have completed (homework only); however, this percentage generally does not reflect your accurate overall course grade (as it does not include in-class activities, quizzes, and exams).

At the end of the semester, students’ MyMathLab data will be exported by the instructor to a separate spreadsheet, and grades will be calculated according to the category weights outlined above. You may contact the instructor at any point throughout the semester if you wish to see your current overall grade approximation.

Student Learning Outcomes

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

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.

Course Requirements and Instructional Methods

LECTURE AND INSTRUCTION

On Tuesdays and Thursdays, our class will meet in person on campus (room 2728) from 1:00 pm – 3:30 pm. Classroom time will consist of a combination of instructor lecture and student activity time, which will include opportunities to ask questions and receive help from both the embedded tutor and the instructor.

Quizzes and exams take place in person during class time. Students may be permitted to work together during in-class activities/quizzes, but exams must be completed individually. Although homework is online, **quizzes and exams must be taken in person**. The only exception will be if there is a Make-Up Quiz offered toward the end of the semester.

CATEGORIES OF ASSIGNMENTS

MYMATHLAB HOMEWORK ASSIGNMENTS (Online)

These are the official homework assignments that make up the “Homework” portion of the overall course grade (see point scale on page 2). These assignments provide very essential practice to help students prepare for quizzes and exams.

Homeworks are generally delineated by chapter/section, and each assignment is typically open for 2 – 5 days. After each assignment’s deadline passes, its link will remain open, and students will be able to continue working on it for 50% credit on any problems completed past the deadline (problems completed before the deadline still retain their 100% credit).

In the homework assignments, you have unlimited tries on each problem. Therefore, if you are willing to devote the necessary time and patience, then you can achieve a score of 100% on every homework assignment (provided you start it soon enough and allow enough time).

Students can receive assistance from me on specific homework problems during designated office hours, or from our embedded tutor during their review session times, or from any other math tutor provided by the IVC Learning Support Services Center or other tutoring resources. **The sooner you get started on each assignment, the more time you will have to ask questions and get help on specific problem areas.**

A NOTE ABOUT DEADLINES: Homework deadlines are strict. Please understand that I cannot extend homework deadlines for individual students because of a missed a due date. In the interest of equity and fairness, students must be assessed with the exact same assignments, deadlines, and standards.

It is every student’s responsibility to log in regularly and stay on top of all due dates. For the online homeworks, after an assignment’s due date passes, you may still work on it for 50% credit (you keep 100% credit for all work done before each due date).

PROJECTS: (Outside of class)

The only collected homework, outside of MyMathLab, will come in the form of Projects that will appear as typed problem sets in Canvas (Canvas → Files → Projects). Between 1 – 3 Projects will be given over the course of the semester. Students may work individually or in groups of up to 4 students on Projects. Further details will be provided when the first Project becomes available on Canvas.

CLASS WORK: (In class)

Many class lecture periods will include work upon 1 – 2 problems from current or recent topics. Students are encouraged to work together, but work will be collected individually and awarded points based upon effort and/or accuracy (depending upon circumstances).

A couple of notes about class work:

1. Class work time is your opportunity to practice the current topics, receive assistance from the instructor and/or embedded tutor (in addition to office hours and review sessions), and learn from one another. This is a crucial part of the learning process. However...
 - It does NOT replace the need to practice problems from the textbook outside of class. Class work alone would be highly insufficient preparation for exams.
 - There may be classes in which we do not have time for class work. If we are falling behind in the material according to the Course Calendar, then some classes may have to be 100% lecture so that we may catch up.
2. **Make-Up Work:** After the beginning of the semester, I do not take attendance. Instead, the collected class work is primarily about attendance and participation, and therefore it cannot be “made up”. The point values are generally very minimal (2 – 4 points for each collected class work); therefore, if you do miss a couple of classes, this will not have a significant impact on your grade. **Do not email me to ask about “making up” missed class work. It is about being present and participating in class, not about the couple of math problems themselves.** For each in-class activity problem that we do, you should be practicing dozens more of that type of problem outside of class in the homework anyhow.

If I allow students to miss class and then turn in the in-class activity later, it defeats the entire purpose of collecting in-class work. It is only when students habitually miss a lot of classes, that the points start to add up and have a significant impact on the overall grade. *[If you do have a true medical or personal emergency during the semester that causes you to miss a lot of class, then you have much larger concerns than a few missing class points.]*

HOMEWORK QUIZZES: (In class)

There may be some quizzes sprinkled throughout the semester, depending upon available class time. If they take place, then upcoming quizzes will be announced both 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. If they take place, then these quiz points will be included under your “In-Class Activities” points.

EXAMS: (In class)

There will be 3 regular exams at 150 points each. Exams are closed-book and closed-note. Some exams will allow scientific calculators, while others might not (this will always be announced in advance). However, for all exams, NO graphing calculators and absolutely NO cell phones or other electronic devices may be used. Students seen touching or looking at a cell phone during an exam will receive an automatic “0” for that exam. Students may NOT leave the room during an exam.

MAKE-UP QUIZZES AND EXAMS

All **exam dates are listed in the Course Calendar on page 10**; please plan accordingly. If you know ahead of time that you absolutely cannot make an exam date due to an out-of-town trip or important engagement, it is possible to arrange with me to take an exam 1 – 3 days ahead of time. However, it is not possible to take an exam after the rest of the class has taken it, as the solutions will be posted in Canvas. In such cases, it will be necessary to take the universal Make-Up Exam.

Each student will have the chance to make up ONE missed exam on the designated Make-Up Exam day of Thursday, May 30. The Make-Up Exam can replace only one missing exam score. The Make-Up Exam is “universal”, meaning that all students who take it will be taking the same exam (regardless of whether they are replacing Exam 1, 2, or 3). The Make-Up Exam will contain selected material from each of Exams 1 – 3. As with the other exams, a review guide will be provided several days prior to the Make-Up Exam.

If you do NOT miss any exams, then you may choose to take the Make-Up Exam if you wish, and replace your lowest exam score (if your Make-Up Exam score is higher than your lowest exam score). Or, you may opt to ignore the Make-Up Exam altogether with no negative consequences to your grade. [If you decide to attempt the Make-Up Exam and score lower than all of your first 3 exams, then the Make-Up Exam score simply wouldn't count; however, you will have gained some valuable review and practice for the Final Exam.]

Course Policies

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.

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 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) 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 in the 2023-2024 General Catalog.

HOW DO I SHOW ACADEMIC HONESTY AND INTEGRITY IN AN ONLINE "CLASSROOM"?

- **KEEP YOUR PASSWORDS CONFIDENTIAL.**
 - 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.**
 - 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.

NOTE: Although this is a face-to-face class, many of these above principles regarding academic honesty in online classes still do apply to our MyMathLab homework assignments, as well as collected Projects.

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 (!!!!)].

Other Course Information

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 Math 170 is a 4-unit class, during a 16-week semester you should plan to spend a **minimum of 8 hours per week** working on homework, studying, receiving tutoring, etc., outside of class time.

Out of class hours are at your discretion; however, it is wise to set up and stick to a routine so that you follow the same structured schedule every week.

IVC Student Resources

CANVAS LMS: Canvas is Imperial Valley College's 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.

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. Services include, but are not limited to:

- Tutoring Labs
- Career Services Center
- Child Development Center
- Student Counseling and Health Services
- Military and Veteran Success Center
- Extended Opportunity Program and Services (EOPS)
- Disabled Student Programs and Services
- Student Equity & Achievement Program*
- Library Services and Information Literacy

***What if I cannot afford food, books, or need other help?**

The Student Equity & Achievement Program has many resources that are available to you. Please tell us what you need by submitting your request(s) here:

<https://imperial.edu/students/student-equity-and-achievement/>

Anticipated Course Calendar

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

Tuesday		Thursday	
2/13	First day intro; Brief algebra review	2/15	Ch. 3
2/20	Ch. 3	2/22	Ch. 3
2/27	Ch. 3, Ch. 4	2/29	Ch. 4
3/5	Ch. 4	3/7	Ch. 4
3/12	Ch. 4	3/14	EXAM 1
3/19	Ch. 4, Ch. 5	3/21	Ch. 5
3/26	Ch. 5	3/28	Ch. 5
4/2	S P R I N G	4/4	B R E A K
4/9	Ch. 5	4/11	Ch. 5
4/16	Ch. 5	4/18	EXAM 2
4/23	Ch. 6	4/25	Ch. 6
4/30	Ch. 6	5/2	Ch. 6
5/7	Ch. 7	5/9	Ch. 7
5/14	Ch. 7	5/16	Ch. 7
5/21	Ch. 8	5/23	EXAM 3
5/28	Ch. 8	5/30	MAKE-UP EXAM
6/4	Ch. 8; review	6/6	FINAL EXAM; MML CLOSSES AT 12:45 PM

IMPORTANT DATES AND DEADLINES:

February 19	Holiday (Washington's birthday)
February 24	Last day to add class; last day to withdraw without owing fees and/or be eligible for refund
February 25	Last day to withdraw without course appearing on transcripts (without receiving a "W")
April 1 – 7	Holiday (Spring Break)
May 11	Last day to withdraw and receive a "W"
May 27	Holiday (Memorial Day)
May 30	Make-Up Exam
June 6	Final Exam (comprehensive)



GET TUTORING HELP WHEN YOU HAVE QUESTIONS



Our class's own **embedded tutor, Sophia Ponce**, will be holding free tutoring sessions for several hours each week (solely for students in our Math 170 class).

[Please check email and Canvas announcements for days/times of Sophia's review sessions]

1

You may attend these sessions in person at the IVC Library (no appointments required). If you cannot attend in person, you may also use the following Zoom link:

<https://www.imperial.edu/student-support/study-skills-center/>

[Follow the link to the virtual front desk, then ask for Sophia Ponce]

The Study Skills Center is holding online tutoring through Zoom:

<https://www.imperial.edu/students/learning-services/study-skills-center/>

2

Or, simply click on **"IVC Tutoring"** from the menu on the left of our Math 170 Canvas page. Appointments are not necessary for "drop-in" tutoring.

I will be holding office hours each week at the following days and times:

3

Monday/Wednesday: 4:30 – 6:00 pm (on campus)

Tuesday/Thursday: 3:30 – 4:00 pm (on campus)

Lots of help is available for you, but you must be willing to take advantage of it in order to benefit!

"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

