

### Basic Course Information

Semester	<b>Summer 2020</b>	Instructor's Name	<b>Caroline Bennett</b>
Course Title & #	<b>Math 190: Pre-Calculus</b>	Instructor's Email	<b>caroline.bennett@imperial.edu</b>
CRN #	<b>30122</b>	Webpage	<b>N/A</b>
Room	<b>N/A</b>	Office	<b>Building 2700; Room 2765</b>
Class Dates	<b>6/22/20 – 7/30/20</b>	Office Hours	Regular office hours do not apply during summer session; however, students may contact me to set up a Zoom session
Class Days	<b>N/A</b>	Office Phone #	<b>(760) 355—6124</b>
Class Times	<b>N/A</b>	Who students should contact if emergency or other absence	<b>(760) 355—6155</b>
Units	<b>5.0</b>		<b>(760) 355—6201</b>

### Course Description

This is a course intended for students who need a thorough foundation before attempting calculus. Included will be the study of the real number system, exponential, logarithmic, and trigonometric functions, the complex numbers, theory of equations, and systems of equations. (CSU) (UC credit limited – see a counselor.)

**Prerequisite:** MATH 140 with C or better on Math placement test.

### 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 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: bennett17734**

**CALCULATOR (required):** A **scientific calculator** is required. A graphing calculator, such as the TI-83+, is recommended, but not 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.**

Certain exams or portions of exams may not allow any calculators at all.

**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:

*Precalculus, 6e* by Robert Blitzer. ISBN: 978-0134469140

**Course Objectives**

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

1. Solve systems of equations and inequalities.
2. Solve equations in one variable including polynomial, rational, radical, absolute value, exponential, logarithmic, piecewise-defined functions, trigonometric and inverse trigonometric functions; and solve inequalities in one variable, including polynomial, rational and absolute value inequalities.
3. Demonstrate an understanding of the relationship between functions and their inverses algebraically and graphically.
4. Graph functions and relations in rectangular and polar coordinates. Analyze the graphs of polynomial, rational, exponential and logarithmic functions based on particular characteristics of the function.
5. Apply transformations to the graphs of functions and relations.
6. Analyze the results from equations and/or graphs of functions and relations;
7. Solve applied problems from a variety of disciplines that can be modeled by linear, polynomial, absolute value, rational, radical, exponential and logarithmic functions.
8. Evaluate trigonometric functions of an angle in radians and degrees.
9. Simplify trigonometric expressions.
10. Solve trigonometric equations, triangles and applied problems that can be modeled by trigonometric functions.
11. Identify special triangle and their related angle and side measures.
12. Graph trigonometric functions and their inverse functions and apply changes in period, phase and amplitude to generate new graphs
13. Prove trigonometric identities and use the identities to solve for exact values, simplify expressions and solve trigonometric equations.
14. Classify and graph conic sections.
15. Analyze parametric and polar equations, functions and graphs.
16. Evaluate sequences and series.

**Course Grading Based on Course Objectives**

**EVALUATION:**

**GRADING SCALE**

		450 – 500	A
MyMathLab Homework	50	400 – 449	B
Group Project	50	350 – 399	C
5 Quizzes × 30 pts each	150	300 – 349	D
Midterm Exam	100	Below 300	F
Final Exam (cumulative)	+ 150		
	500		

**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 cumulative and mandatory for all students.**

## Course Requirements and Instructional Methods

**LECTURE:** Our “lecture” primarily takes place through videos that are available for each section or topic. These videos are found in Canvas through the **Modules** feature on the menu, delineated by chapter/section. Each video is 10 – 20 minutes in length, and contains either a combination of lecture and examples, or pure examples, similar to those which you will practice through the MyMathLab homework.

*\*Although you can pause and replay video lectures as many times as desired, it is still recommended that you take notes while watching the lecture videos, just as you would take notes during a classroom lecture. Organize your notes by chapter and section, and have them with you as you work on homework and quizzes.\**

**HOMEWORK:** After viewing a particular section’s video(s), it is recommended that you reinforce those concepts by practicing them in the homework as soon as possible afterward. You can always re-watch a video as many times as you need to, if you are struggling with certain topics.

In the homework itself, several help tools are available to aid you as well. Many students like to use the “View an Example” tool from the MyMathLab help menu, which can be very useful in helping students understand how to work certain problems.

HOWEVER, please keep in mind that “View an Example” is a *help tool*, and you should take care not to become overly dependent upon that tool, as it will not be available during quizzes and exams. Help tools such as “View an Example” should be seen as merely *one step* of the learning process, not simply as a means of accumulating homework points. As can be seen in the Course Grading Scale (page 2), homework points alone will not be sufficient for an overall passing grade in the course.

Homework for each section is generally open for one week after it becomes available (for example, if the section 4.3 assignment were to open on a Tuesday, then it would be due on the following Tuesday). The only exceptions are assignments during the last week of the course – by necessity, those may be open for a shorter amount of time, as the last day to work on homework is the day of the Final Exam (Thursday, July 30).

One graded, written homework project will be collected in addition to the MyMathLab work. You may work in groups on the project. If you have a physical copy of the textbook, this also offers practice problems, with answers to the odd exercises provided in the back. Remember, as indicated on page 1, purchasing a physical textbook is not required, as the entirety of the textbook’s contents is available through the MyMathLab program.

**QUIZZES:** Quizzes also take place in MyMathLab, so they will appear very similar to the homework assignments. Some quiz problems may even be identical to previous homework problems. However, the format is slightly different. The help tools are not available, and you may only submit an answer to each problem once per submission of the quiz, then see all answer results after submitting the whole quiz.

HOWEVER, students may have unlimited tries at each quiz until the time that it is due (11:59 pm on Monday – please refer to the calendar on page 8 for specific quiz due dates). The highest score of all attempts will be used for each quiz’s final score in a student’s grade. Therefore, it is to your advantage to start quizzes sooner rather than later, so that you may have ample time to re-attempt each quiz as many times as you wish until you are satisfied with your score.

**EXAMS:** There will be two exams – one Midterm Exam on Thursday of Week 3, and the Final Exam on Thursday of Week 6 (please refer to calendar on page 8). Both exams will be administered through MyMathLab, just as the homework and quizzes are.

HOWEVER, the format is again different – unlike quizzes, students do not have unlimited attempts at exams. Exams will have a 3 hour time limit, and may only be submitted once. And, of course, the help tools will not be available during the test.

*\*While exams for an online math course are inevitably open-book and open-note, you should study/prepare for them just as you would study and prepare for a regular in-class exam. If you will be relying on looking up how to do everything during the test, you may find yourself running out of time.\**

**MAKE-UPS:** **Do not miss a scheduled quiz or exam.** Make-up quizzes are not granted, since students generally have several days to work on them. Make-up exams will only be granted in the most dire of circumstances. Documentation is generally required (doctor’s note, funeral notice, police report, etc.). Family trips out of town and “I didn’t know we had a quiz/exam” are not considered as dire circumstances.

**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.

If this were a face-to-face class in regular semester, you would therefore be expected to spend a minimum of 10 hours per week (since this is a 5-unit class) working on homework, studying, getting tutoring, etc., outside of class.

**Since this is now an online class AND it is during an accelerated (6 week) session, you should be setting aside a minimum of 20 hours per week to be devoted to this class. Those 20 hours are at your discretion; however, it would be wise to set up and stick to a routine so that you are on the same structured schedule every week.**

**This course will be extremely fast-paced and intensive. Accelerated math is not for everybody, and online math is not for everybody. This class is both. If you plan to stay in the class, it is a serious commitment.**

**It is critical that you stay caught up, avoid falling behind, stay organized, ask questions, and get additional help whenever necessary, as soon as possible.**

**NOTE:** The special “COVID-19 drop” of the spring 2020 semester is no longer available. Regular drop policies and procedures apply. If you will be deciding to drop this or any other class, make sure that you do so by the deadlines (see page 8 for Important Dates and Deadlines).

### Additional Commentary on Succeeding in This Course

**HOMEWORK** should always be taken seriously in a math class. Math is a skill that you can become good at by *practicing it*. Watching videos 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 in online tutoring platforms (instead of just saying “I’m lost” or “I can’t do this”), so that I or a tutor can better help you.

Math, like learning piano or playing a sport, is best learned when it is practiced regularly. Our online format is not ideal for learning math. Therefore, **it is an extremely bad idea to wait until the weekend to start your homework and/or quizzes**. One of the best things you can do is reserve regular time slots in your weekly schedule that will be specifically devoted to working on Math 190 (make this a routine every week – not just when an exam is coming up).

In fact, you should always begin your homework as soon as possible viewing each lecture video. Here are some further tips and suggestions:

- 1) Form a study group and work homework problems together with classmates, through online platforms such as Zoom, Facetime, etc.
- 2) Take advantage of the free math tutoring resources on campus (see Page 8 for details).
- 3) Contact me to set up a Zoom session to go over additional examples on a particular topic.

### Attendance

*[NOTE: This section contains a mandatory statement from the IVC syllabus template, so it is included although it does not necessarily apply to online courses.]*

- 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.

## Classroom Etiquette

[NOTE: This section contains a mandatory statement from the IVC syllabus template, so it is included although it does not necessarily apply to online courses.]

**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.

## 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 Help

- Canvas help: <https://community.canvaslms.com/community/answers/guides/>  
24-hour support hotline: (877) 893-9853
- 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. 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. 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](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**

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

Monday	Thursday	Chapters
6/22	6/25	2
6/29 <b>QUIZ 1 DUE</b>	7/2 <b>HOLIDAY – NO CLASS</b>	3, 4
7/6 <b>QUIZ 2 DUE</b>	7/9 <b>MIDTERM EXAM</b>	4, 5
7/13 <b>QUIZ 3 DUE</b>	7/16	5, 6
7/20 <b>QUIZ 4 DUE</b>	7/23 <b>GROUP PROJECT DUE</b>	7, 9
7/27 <b>QUIZ 5 DUE</b>	7/30 <b>FINAL EXAM</b>	10

**Important Dates and On-Campus Tutoring Resources**

**IMPORTANT DATES AND DEADLINES:**

- June 24 Last day to add class
- June 29 Last day to withdraw without owing fees and/or be eligible for refund
- July 21 Last day to withdraw and receive a “W”
- July 30 Final Exam (comprehensive)

**ON-CAMPUS TUTORING RESOURCES:**

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

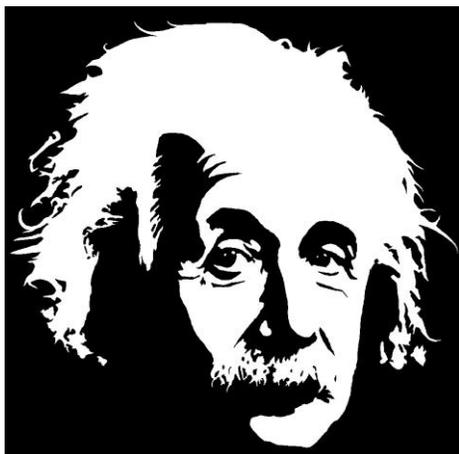
**Study Skills Center**  
 Located in the Library  
 (760) 355 – 6384 (Josue Verduzco)

Online tutoring through Zoom  
 with embedded tutor...

[information to come]

The Math Lab is holding online tutoring through Zoom:  
<https://imperial.edu/students/computer-labs/math-lab/online-tutoring/>

The Study Skills Center is holding online tutoring through Zoom:  
<https://www.imperial.edu/students/learning-services/study-skills-center/>



*“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