

### Basic Course Information

Semester	<b>Spring 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>20133</b>	Webpage	<b>N/A</b>
Room	<b>Building 1600; Room 1603</b>	Office	<b>Building 2700; Room 2765</b>
Class Dates	<b>2/18/20 – 6/12/20</b>	Office Hours	<b>M W 5:00 – 6:00 pm in office T Th 12:30 – 1:00 pm in office 9:15 – 9:45 pm in room 2725</b>
Class Days	<b>Monday / Wednesday</b>	Office Phone #	<b>(760) 355 – 6124</b>
Class Times	<b>6:30 – 9:00 pm</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: bennett84923**

**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:**

Class Work & Group 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 treated equally.**

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

## Course Requirements and Instructional Methods

HOMWORK 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.

Math, like learning piano or playing a sport, 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 specifically devoted to working on Math 190 (make this a routine every week – not just when an exam is coming up).

Online homework with MyMathLab is used in this course. Students 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 the MyMathLab homework problems; therefore, the online homework provides you with vital practice. Some graded, written homework assignments will be collected in addition to the MyMathLab work. 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.

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 and suggestions:

- 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 math tutoring resources on campus (see Page 8 for details).

EXAMS AND QUIZZES 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 by email and/or on Canvas.

Quiz dates are not listed in the calendar, as they will depend upon the pace and progress of the class. Quiz dates will be announced both in class and on Canvas. **Quizzes (not exams) are open-book and open-note, and students may work in groups of up to four**. Most quiz problems are taken directly from the textbook – therefore, the best way to prepare for quizzes is by practicing the book problems **ahead of time**.

**MAKE-UPS:** Students with **extenuating** circumstances may arrange to take an exam 1 – 3 days in advance; however, since exam solutions are posted online for learning purposes, exams **cannot** be taken after their official exam date. In cases of true emergency, one missed exam can be replaced with the **Universal Make-Up Test**, which will take place on **Monday, June 8** (during finals week). The Universal Make-Up Test will contain problems from subject areas covered in Exams 1, 2, and 3. Each student has the opportunity to make up ONE missed exam with the Universal Make-Up Test. If you do not like this policy, then do not miss an exam.

No exam scores will be “dropped”. However, if you do not miss any scheduled exams, then you may opt to take the Universal Make-Up Test at the end of the semester. If your score on the Universal Make-Up Exam exceeds your lowest exam score from Exams 1 – 3, then it will replace that lowest exam score (if it does not exceed any of your test scores, then it simply would not affect your grade). Note that if you miss a regularly scheduled exam, then you will miss this opportunity.

**There are no make-up quizzes. If you are absent or leave class early on a quiz day for ANY reason, then you miss the quiz. You may not take the quiz early so that you may leave early.**

**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 5 unit class, this means that you should expect and plan for a minimum of 10 hours to be spent working on precalculus *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, as soon as possible.

## 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 (**Monday/Wednesday, 6:30 – 9:00 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 9, 2020**) 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.

### **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		Wednesday	
2/17	<b>HOLIDAY – NO CLASS</b> 😊 ☹️	2/19	Welcome/syllabus; 1.6, 1.10
2/24	2.2 – 2.3	2/26	2.3 – 2.4
3/2	2.4 – 2.5	3/4	<b>CLASS CANCELLED</b>
3/9	2.5 – 2.6; <b>Quiz 1</b>	3/11	2.6; 3.1 – 3.2
3/16	<b>EXAM 1</b>	3/18	3.2 – 3.4
3/23	3.4 – 3.5	3/25	4.1 – 4.2
3/30	4.3 – 4.4	4/1	5.1 – 5.4
4/6	5.5	4/8	5.5, 6.3
4/13	<b>S P R I N G</b>	4/15	<b>B R E A K</b>
4/20	<b>EXAM 2</b>	4/22	6.3 – 6.4
4/27	6.5 – 6.6	4/29	6.6 – 6.7
5/4	7.3; catch-up	5/6	7.4 – 7.5
5/11	8.1 – 8.2	5/13	8.3 – 8.4
5/18	9.1 – 9.2	5/20	<b>EXAM 3</b>
5/25	<b>HOLIDAY – NO CLASS</b> 😊 ☹️	5/27	9.3 – 9.5
6/1	10.1 – 10.3	6/3	10.4 – 10.5
6/8	<b>Universal Make-Up Exam</b>	6/10	<b>FINAL EXAM</b>

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

**IMPORTANT DATES AND DEADLINES:**

- February 29      Last day to add class; last day to withdraw without owing fees and/or be eligible for refund
- March 1          Last day to withdraw without course appearing on transcripts (without receiving a “W”)
- May 9            Last day to withdraw and receive a “W”
- June 10          Final Exam (comprehensive)

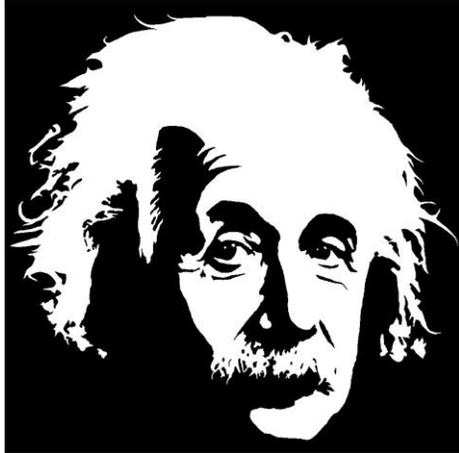
**ON-CAMPUS TUTORING RESOURCES:**

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

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

**HOURS OF OPERATION:**

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*“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*