| Basic Course Information | | | | | |
|--------------------------|------------------------|---------------------|---|--|--|
| Semester: | Spring 2022 | Instructor Name: | Caroline Bennett | | |
| Course Title & #: | Math 190: Pre-Calculus | Email: | caroline.bennett@imperial.edu | | |
| CRN #: | 20064 | Webpage (optional): | N/A | | |
| Classroom: | Online via Zoom | Office #: | Building 2700, Room 2765 | | |
| Class Dates: | 2/15/22 – 6/9/22 | Office Hours: | Monday: 5:00 – 6:00 pm (on campus) Tues/Thurs: 12:00 – 1:00 pm (on campus) Wednesday: 4:00 – 5:00 pm (Zoom) | | |
| Class Days: | Tuesday/Thursday | Office Phone #: | (760) 355 – 6124 | | |
| Class Times: | 6:30 pm – 9:00 pm | Emergency Contact: | (760) 355 – 6155 | | |
| Units: | 5.0 | Class Format: | Real-Time Online (synchronous) | | |

Course Description

Preparation for calculus: polynomial, absolute value, radical, rational, exponential, logarithmic, and trigonometric functions and their graphs; analytic geometry, polar coordinates. (UC credit limited. See a counselor) (CSU/UC)

Course Prerequisite(s) and/or Corequisite(s)

Appropriate placement as defined by AB705 or, MATH 140 or equivalent with a grade of "C" or better.

Corequisite: Math 094 (Math 190 Support Course)

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. 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.

Textbooks & Other Resources or Links

<u>MYMATHLAB Access Code</u> (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: bennett81451

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

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

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

Course Grading Based on Course Objectives

| EVALUATION: | | | GRADING S | <u>CALE</u> | |
|-------------------------------|-------------------|-------------|------------------------|-----------------------------------|---------|
| MyMathLab Homework | 150 | | 900 – 1000 | Α | |
| In-Class Activities | 50 <mark>*</mark> | | 800 – 899 | В | |
| Group Projects 150 | | | 700 – 799 | С | |
| 3 exams × 150 points each 450 | | | 600 – 699 | D | |
| Final Exam (cumulative) | <u>+ 200</u> | | Below 600 | F | |
| | 1000 | | | | |
| | | | *In-Class Activities I | *In-Class Activities Point Scale: | |
| | | 80% - 100%: | 50 pts. | 40% - 49%: | 30 pts. |
| | | 70% - 79%: | 45 pts. | 20% - 49%: | 20 pts. |
| | | 60% - 69%: | 40 pts. | 5% - 19%: | 10 pts. |
| | | 50% - 59%: | 35 pts. | ≤ 5%: | 0 pts. |

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: Grades will NOT be posted in Canvas.

<u>NOTE</u>: MyMathLab will automatically display a current percentage based upon the online work that you have completed (combining in-class activities and homework); however, this percentage generally does <u>not</u> reflect your accurate overall course grade. 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.

Course Requirements and Instructional Methods

LECTURE AND INSTRUCTION

This course is a "synchronous" online course, meaning that we do have designated time slots in which we will meet together each week (Tues/Thurs, 6:30 – 9:00 pm) via Zoom. During that time, I will present lectures as closely as possible to the way that they would be presented on the board in the classroom. Students will have the opportunity to ask questions during Zoom lectures, just as in the classroom.

Additionally, there will be "office hours" both online in Zoom as well as on campus (see Page 1 for details). Just as with on-campus classes, students are <u>not</u> required to attend office hours, but rather it is a weekly opportunity for students to ask questions, see more examples, etc., if they wish.

ONLINE ASSIGNMENTS

There will be 2 categories of assignments in MyMathLab:

1) **HOMEWORK:** 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.

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 <u>not</u> be available during quizzes and exams. Help tools such as "View an Example" should be seen as merely <u>one step</u> of the learning process, not simply as a means of accumulating homework points. Rather, **homework should be viewed as a means of learning so that you can do well on the quizzes and exams.**

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, June 9).

<u>NOTE</u>: Homework deadlines are strict. Please understand that I cannot extend homework deadlines for particular students because they missed a due date. It is vital that all students be assessed with the exact same assignments and deadlines, in the interest of equity and fairness. It is the student's responsibility to log in regularly and keep track of all due dates. 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 the due date).

2) EXAMS: There will be 3 regular exams and one Final Exam in MyMathLab. The format and types of problems will look similar to homework problems. However, unlike homework assignments, the help tools (such as View An Example) will not be available during exams. Furthermore, students will <u>not</u> have unlimited attempts on exams. Rather, **each exam may be completed and submitted only one time**.

Each exam will have a 3-hour time limit once it is opened. If you leave the exam for any reason before submitting it (e.g., to view previous assignments), then you will be locked out of the exam and unable to complete it without instructor permission. Therefore, it is important that you take good notes and learn what you need to learn from the homework assignments BEFORE you take the exam.

<u>MAKE-UPS</u>: Each student will have the chance to make up ONE missed exam on the designated Make-Up Exam day of Friday, June 3. The Make-Up Exam can replace only one missing exam score. 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).

GROUP PROJECTS

These will be the only assignments that are NOT completed through MyMathLab. The group projects will be written up, scanned/photographed, and submitted through Canvas. Detailed instructions regarding the group projects will become available through Canvas later in the semester (several announcements and reminders will be made as the group projects approach).

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.

What does it mean to "attend" an online class?

Attendance is critical to student success and for IVC to use federal aid funds. Acceptable indications of attendance are:

- · Student submission of an academic assignment
- Student submission of an exam
- Student participation in an instructor-led Zoom conference
- Documented student interaction with class postings, such as an interactive tutorial or computerassisted instruction via modules
- A posting by the student showing the student's participation in an assignment created by the instructor
- A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters
- An email from the student or other documentation showing that the student has initiated contact with a faculty member to ask a question about an academic subject studied in the course.

Logging onto Canvas alone is NOT adequate to demonstrate academic attendance by the student.

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 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 on pp. 45-46 of the 2019-2020 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.

HOW AM I EXPECTED TO ACT IN AN ONLINE "CLASSROOM" (ESPECIALLY ZOOM)?

Attending a virtual meeting can be a challenge when there are many students on one conference call. Participating in such meetings may count as class attendance, but disruptive behavior may also result in you not being admitted to future meetings. Follow the tips below for best results:

1) Be RESPECTFUL

a. Your written, verbal, and non-verbal communications should be respectful and focused on the learning topics of the class.

2) Find a QUIET LOCATION & SILENCE YOUR PHONE (if zooming)

a. People walking around and pets barking can be a distraction.

3) EAT AT A DIFFERENT TIME.

- a. Crunching food or chugging drinks is distracting for others.
- b. Synchronous zoom times are set in advance so reserve meals for outside class meetings.

4) ADJUST YOUR LIGHTING SO THAT OTHERS CAN SEE YOU

a. It is hard to see you in dim lighting so find a location with light.

b. If your back is to a bright window, you will be what is called "backlit" and not only is it hard on the eyes (glare) but you look like a silhouette.

5) POSITION THE CAMERA SO THAT YOUR FACE AND EYES ARE SHOWING

- a. If you are using the camera, show your face; it helps others see your non-verbal cues.
- b. You may be at home, but meeting in pajamas or shirtless is not appropriate so dress suitably. Comb your hair, clean your teeth, fix your clothes, etc. before your meeting time to show self-respect and respect for others.

6) Be READY TO LEARN AND PAY ATTENTION

- a. Catch up on other emails or other work later.
- b. If you are Zooming, silence your phone and put it away.
- c. If you are in a room with a TV turn it off.

7) USE YOUR MUTE BUTTON WHEN IN LOUD PLACES OR FOR DISTRACTIONS

a. Pets barking, children crying, sneezing, coughing, etc. can happen unexpectedly. It's best if you conference in a private space, but if you can't find a quiet place, when noises arise MUTE your laptop.

8) REMEMBER TO UNMUTE WHEN SPEAKING

- a. Follow your instructor's directions about using the "raise hand" icon or chat function to be recognized and to speak, but make sure you have unmuted your device.
- b. Do not speak when someone else is speaking.

9) REMAIN FOCUSED AND PARTICIPATE IN THE MEETING

- a. Especially when the camera is on YOU, we can all see your actions. Engage in the meeting. Look at the camera. Listen to instruction. Answer questions when asked.
- b. Do not use the Zoom meeting to meet with your peers or put on a "show" for them.

10) PAUSE YOUR VIDEO IF MOVING OR DOING SOMETHING DISTRACTING

Emergencies happen. If you need to leave the room or get up and move about, stop your video.

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

<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. The Western Association of Schools and Colleges (WASC) has adopted a similar requirement. Since Math 190 is a 5-unit class, you should plan to spend a minimum of 10 hours per week working on homework, studying, receiving tutoring, etc., outside of class time.

These 10+ 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. If you plan to stay in the class, it is a serious commitment.

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 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 | |
|-------------------------|--|---|--|
| 2/15 First day of class | 2/17 | Ch. 1 (miscellaneous topics), 2.2 | |
| 2/22 | 2/24 | 2.3 – 2.4 | |
| 3/1 | 3/3 | 2.5 – 2.6 | |
| 3/8 | 3/10 | 3.1 – 3.2 | |
| 3/15 | 3/17 EXAM 1 | 3.3 – 3.4 | |
| 3/22 | 3/24 | 3.5; 4.1 – 4.2 | |
| 3/29 | 3/31 | 4.3 – 4.4 | |
| 4/5 | 4/7 | 5.1 – 5.3 | |
| 4/12 | 4/14 EXAM 2 | 5.5, exam | |
| 4/19 S P R I N G | 4/21 B R E A K | Rest, catch up | |
| 4/26 | 4/28 | 6.5, 6.3, 6.4 | |
| 5/3 | 5/5 | 6.4, 6.6, 6.7 | |
| 5/10 | 5/12 | 7.3, 8.1; catch up | |
| 5/17 | 5/19 | 9.1 – 9.3 | |
| 5/24 | 5/26 EXAM 3 | 10.1 – 10.2 | |
| 5/31 | 6/2 | 10.3, 10.5 Friday, 6/3: MAKE-UP EXAM | |
| 6/7 | 6/9 FINAL EXAM Homework closes at 6:15 pm | review; final exam | |

IMPORTANT DATES AND DEADLINES:

| February 21 | Holiday (Washington's birthday) – no classes |
|---------------|--|
| February 26 | Last day to add class |
| February 26 | Last day to withdraw without owing fees and/or be eligible for refund |
| February 27 | Last day to withdraw without course appearing on transcript |
| | (without "W" fees will be charged, no refunds) |
| March 11 | Financial aid freeze date (withdrawal before this date requires eligibility recalculation) |
| April 18 – 24 | Spring Recess – no classes |
| May 14 | Last day to withdraw and receive a "W" |
| June 3 | Make-Up Exam |
| May 30 | Holiday (Memorial Day) – no classes |
| June 9 | Final Exam |





GET TUTORING HELP WHEN YOU HAVE QUESTIONS







Our class's own **embedded tutor, John Martin**, will be holding free tutoring sessions every week (solely for students in our Math 190 class).

Tuesday/Thursday: 5:00 – 6:00 pm (online, via Zoom)

To access John's tutoring sessions, use the link:

https://cccconfer.zoom.us/j/93055359930

Or, click on "IVC Tutoring" from the menu on our Canvas page

*Additional review session times may be available if there is enough demand for it.

2

The Learning Support Services Center is holding online tutoring through Zoom:

https://cccconfer.zoom.us/j/93055359930

Or, simply click on "IVC Tutoring" from the menu on the left of our Math 190 Canvas page.

Appointments are available, as well as "drop-in" tutoring.

In-person tutoring is available on campus as well, both by appointment and "drop-in".

Find more information through their schedule at:

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

(3)

Office hours with the instructor are available each week at the following times:

ON CAMPUS: Monday: 5:00 – 6:00 pm Tuesday/Thursday: 12:00 – 1:00 pm

ONLINE: Wednesday: 4:00 – 5:00 pm

Although **NOT** mandatory, this is students' opportunity to **meet with the instructor** for live help on questions regarding video lectures, examples, homework, etc.

Lots of help is available, but you must 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

