

Basic Course Information				
Semester:	Spring 2023	Instructor Name:	Caroline Bennett	
Course Title & #:	Math 194: Analytic Geometry and Calculus II	Email:	caroline.bennett@imperial.edu	
CRN #:	20780	Webpage (optional):	N/A	
Classroom:	Building 2700, Room 2721	Office #:	Building 2700, Room 2765	
Class Dates:	2/14/23 - 6/8/23	Office Hours:	Mon/Wed: 5:00 – 6:00 (on campus) Tues/Thurs: 12:00 – 1:00 (on campus)	
Class Days:	Tues / Thurs	Office Phone #:	(760) 355 - 6124	
Class Times:	6:30 – 8:35 pm	Emergency Contact:	(760) 355 - 6155	
Units:	4.0	Class Format:	Face-to-Face (on campus)	

## **Course Description**

A second course in differential and integral calculus of a single variable: integration; techniques of integration; infinite sequences and series; polar and parametric equations; applications of integration. Primarily for Science, Technology, Engineering & Math Majors. (C-ID: MATH 220) (CSU/UC)

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

MATH 192 with a grade of "C" or better.

## **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.

## **Textbooks & Other Resources or Links**

Required: Stewart, James 2016. Calculus: Early Transcendentals 8th. Cengage Learning ISBN: 9781285741550

**Recommended:** A scientific calculator may be used during quizzes and exams. Graphing calculators, cell phones, and other electronic devices are NOT permitted during quizzes and exams.

Math 194: Analytic Geometry and Calculus II



# **Course Objectives**

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

- 1. Evaluate definite and indefinite integrals using a variety of integration formulas and techniques
- 2. Apply integration to areas and volumes, and other applications such as work or length of a curve
- 3. Evaluate improper integrals
- 4. Apply convergence tests to sequences and series
- 5. Represent functions as power series
- 6. Graph, differentiate and integrate functions in polar and parametric form

# **Course Grading Based on Course Objectives**

EVALUATION:		GRADING SCA	<b>GRADING SCALE</b>	
Projects	75	540 – 600	Α	
Quizzes and Class Work	75	480 – 539	В	
3 exams × 100 points each	300	420 – 479	C	
Final Exam (cumulative)	<u>+ 150</u>	360 – 419	D	
	600	Below 360	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**

**PRACTICE PROBLEMS:** Recommended practice problems will be listed for each section that we cover from the Stewart text (Canvas → Pages → View All Pages). They are your source of practice so that you can reinforce the concepts that we cover in class and master the skills necessary for the subsequent math courses you will be taking. These practice problems are NOT collected for points; however, your performance on exams (and therefore your exam scores and overall course grade) depends directly upon how many problems you have practiced. In this sense, it WILL affect your arade.

**PROJECTS:** The only collected homework will come in the form of Projects that will appear as typed problem sets in Canvas (Canvas  $\rightarrow$  Files  $\rightarrow$  Projects). A total of 2 – 3 Projects will be given over the course of the semester. You may work individually or in groups of up to 4 students on Projects.

<sup>\*</sup>Professors do not GIVE grades to students. Students EARN their grades.



**CLASS WORK:** 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). These problems are frequently taken directly from the Stewart textbook.

#### 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 session times), 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 should <u>not</u> have a significant impact on your grade (therefore there is no need to email me and ask about making up 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. [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].

**QUIZZES:** Some quizzes will occur throughout the semester. Quiz dates are NOT included in the Course Calendar as exam dates are, since quizzes are on a largely "as-needed" basis dependent upon the overall skill level and progress of the class, which differs each semester. [For example, if a large number of students are struggling in a particular section due to a prerequisite deficiency regarding a specific trig identity, then we may have a quiz with problems involving that trig identity, to encourage students to review and practice it.] Upcoming quizzes will be announced both in class and on Canvas.

**EXAMS:** There will be 3 regular exams at 100 points each. Exams are closed-book and closed-note. A scientific calculator may be used during exams, but NO graphing calculators and NO cell phones or other electronic devices may be used.

**FINAL EXAM:** The Final Exam is cumulative and mandatory for all students.

**MAKE-UP EXAMS:** Missing an exam should be a <u>rare</u> occurrence. However, each student has the opportunity to make up ONE missed exam in the event of a true emergency. This opportunity is the Universal Make-Up Exam, which takes place toward the end of the semester (see Course Calendar for exam dates). Any student who misses a test will take the same Universal Make-Up Exam, regardless of which exam needs replacing. This Make-Up Exam will contain material from each of Exams 1 – 3.



#### **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 on pp. 45-46 of the 2019-2020 General Catalog.



#### **IVC Student Resources**

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <a href="http://www.imperial.edu/studentresources">http://www.imperial.edu/studentresources</a> or click the heart icon in Canvas.

**CANVAS LMS:** Canvas is Imperial Valley College's Learning Management System. The <u>Canvas Student Guides Site</u> 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's 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/

# **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 194 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., <u>outside</u> of class time, to achieve success. Keep in mind that transfer-level STEM courses generally require greater amounts of time commitment from students than most other courses.



# **Anticipated Course Calendar**

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

Tuesday	Thursday	Weekly Goals
2/14 First day of class	2/16	6.1 – 6.2
2/21	2/23	6.3 – 6.4
2/28	3/2	7.1 – 7.2
3/7	3/9	7.3 – 7.4
3/14	3/16 <b>EXAM 1</b>	Catch-up, review, exam
3/21	3/23	7.8 – 8.1; Ch. 8 applications
3/28	3/30	11.1 – 11.4
4/4	4/6	11.5 – 11.7
4/11 S P R I N G	4/13 <b>B R E A K</b>	
4/18	4/20	11.8 – 11.11
4/25	4/27 <b>EXAM 2</b>	Catch-up, review, exam
5/2	5/4	10.1 – 10.2
5/9	5/11	10.3 – 10.4
5/16	5/18	10.5 – 10.6
5/23	5/25 <b>EXAM 3</b>	Catch-up, review, exam
5/30	6/1 MAKE-UP EXAM	Catch-up, review, Make-Up Exam
6/6	6/8 FINAL EXAM	Review, Final Exam

# **IMPORTANT DATES AND DEADLINES**:

February 20	Holiday (Washington's birthday)
February 25	Last day to add class; last day to withdraw without owing fees and/or be eligible for refund
February 26	Last day to withdraw without course appearing on transcripts (without receiving a "W")
April 10 – 14	Holiday (Spring Break)
May 13	Last day to withdraw and receive a "W"
May 29	Holiday (Memorial Day)
June 1	Make-Up Exam
June 8	Final Exam (comprehensive)







# **GET TUTORING HELP WHEN YOU HAVE QUESTIONS**







Our class's own **embedded tutor**, **B'Elanna Vela**, will be holding free tutoring sessions for several hours each week (solely for students in our Math 194 class).

[Days/times for review sessions will be posted here when information becomes available]

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 B'Elanna Vela]

(2)

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

Monday/Wednesday: 5:00 – 6:00 pm (on campus)

Tuesday/Thursday: 12:00 – 1:00 pm (on campus)

Help is available, but you must take advantage of it in order to benefit. This means starting as early as possible on practice problems and homework projects, so that you will have ample time to ask questions and receive assistance.

"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 Finstein

