MATH 5B - Single Variable Calculus II

Spring 2019

5 Credits

CRN 30719

Course Syllabus

Dr. Jorge Basilio

Pasadena City College

gbasilio@pasadena.edu

Basic Info

Meetings	Tuesdays & Thursdays from 4:00 to 6:30 pm
Meeting Location	Room R-109
Office Hours	Thursdays 11am-12pm in R-406
Course website	https://bit.ly/2ozd3LH

What is this class?

Course Description

Differentiation and integration of trigonometric, exponential, logarithmic, hyperbolic functions, polar, and parametric equations; applications and techniques of integration; indeterminate forms and infinite sequences and series.
Prerequisites: MATH 5A, or placement based on the Math assessment process.

Student Learning Outcomes

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

1. Differentiate and integrate transcendental functions.
2. Demonstrate the ability to select appropriate techniques and correctly perform a specific integration.
3. Solve application problems involving integration.
4. Perform differentiation and integration on parametric and polar curves.
5. Represent functions as power series, test these power series for convergence, and use the theory of power series in applications.

Evaluation

Grading Criteria

Pre-class Assignments	5%
In-class Assignments	5%
Online Assignments	10%
Labs	2%
Exams (4 @ 12% each)	48%
Final Exam	25%

Grade Cutoffs

A	89-100%
B	79-88%
C	69-78%
D	60-68%
F	<59%

Course Materials

Textbook: *Calculus*, 8th Ed, by James Stewart

- An electronic version of the textbook comes with access to the WebAssign homework system. So if you are ok with studying from an ebook then you DO NOT have to buy a hard copy of the textbook.
- You can buy an earlier edition for cheaper if you plan to use it as a future reference or resource. Since the HW is done online you will not need a physical copy of the textbook for the homework.

Online HW/Book access: WebAssign

CLASS KEY: pasadena 7125 2463

- Use the "Class Key" to register and access our section in WebAssign, which is the online homework system that we will use.
- Please purchase access to the "homework AND e-book" which is approximately $100 total and is the best deal.
- Sign-up immediately since registration is FREE for the first two weeks of class.

Calculator/Technology

- Scientific Calculator will be allowed during class and exams. If you have a graphing calculator you can use it during class but it will not be allowed during exams.
- There are many powerful "calculators" online. These are an excellent resource but they must be used responsibly. I highly recommend (all are FREE): Geogebra, Desmos, SymboLab, WolframAlpha, & CoCalc

Supplies

- A 3-Ring Notebook or a Binder with Paper, a stapler, pens/pencils (having 2 or 3 different colors really helps with note taking!)

Requirements

Assignments

Pre-class Assignments (PCAs)
You are expected to read the textbook BEFORE CLASS and complete short assignments due 10 minutes before the beginning of each class. Typically these will be reading comprehension questions and problems that are relatively easy. They will be designed to be completed in 15-20 minutes *after you have carefully read the textbook.*

In-class Assignments (ICAs)
I expect students to be actively engaged in the course and to participate. Thus, while in class there will be two components to In-class Assignments: 1) course notes and 2) Groupwork. Course Notes: You are expected to take notes in every class. These will be collected on test days. If you miss a class, you will need to find the class notes from another students. Groupwork: In addition to taking notes, I will have problems for you to work on in groups.

Online Assignments
Mastering calculus takes a lot of hard work and practice. In addition to the PCAs there will be an additional assignments that cover the material at a deeper level.

Class Rules

Attendance
You are required to attend all classes–please be on time! Excessive absences will affect your overall grade in class. **Students may be dropped from class after (cumulative) 4 absences**. Please note that **3 tardies = 1 absence**, and that if you are more than 20 minutes late or leave before the end of class, you will be marked absent.

Class Participation
You are expected to participate ACTIVELY in class. This means: taking accurate notes, asking questions, and working on classwork. You might be asked to work in groups or present your solutions to the class.

Time Commitment
A typical student taking a college math course spends an average of 2 hours outside of class for every hour in class. Our class meets for approximately 5 hours per week. You will need approximately 10 hours per week outside of class to study and/or complete assignments. Be sure that you have the time available to do homework and study; if not, you need to adjust your schedule. Otherwise you will be at a disadvantage and your chance for success in this course will be lower.

Important Dates

3/14	Professional Development Day/FLEX - No Classes/Office Hours
4/1	Chesar Chaves Day - No classes Meet
4/16-4/18	Spring Break - No classes Meet
5/27	Memorial Day - No classes Meet
3/3	Last day to add this course
3/3	Last day to drop WITHOUT a "W" & Receive refund
5/17	Last day to drop WITH a "W"
6/14	Commencement

Rules

Class Rules

Environment of Respect
To be respectful of everyone in class and understand that everyone has the right to learn.

Cleanliness
Keep the classroom clean, do not bring food into the classroom and leave no trash.

Honor Code
Follow the standards of academic honesty and the code of conduct of Pasadena City College. (Please do not even consider cheating or plagiarizing an assignment. This action will have severe consequences which include a zero on the given exam or assignment and having the incident reported to Student Services. The Dean of Student Life can then impose institutional consequences like limiting educational activities, probation, and expulsion from the college. Cheating can include, but is not limited to, copying from a fellow student on an exam or assignment; using your cell phone or other smart device during an exam; letting your eyes wander to your fellow student?s paper during an exam.)

Class Rules

Cell Phones
You may NOT have your cell phone out during class for any reason. This means: no texting, no phone calls, no apps, etc. Never photograph notes unless I specifically allow the class to do so. PENALTY: if I see your phone out (even if it is turned off), I will mark you as late (if you were on time) or absent (if you were late). After your third offense, you will be asked to leave the classroom.

Computers & Tablets
Computers & Tablets are allowed only if you sit on the front row and are using the computer for note taking, graphing software. Any other use such as using social media, watching videos, is not allowed. PENALTY: Violating the above rules will result in a student being marked late (if you were on time) or absent (if you were late). After your third offense, you will be asked to leave the classroom and no longer be allowed to use your laptop/tablet.

Food & Drinks
Only liquids with a non-spill lid are allowed in the classroom (water bottles, coffee with a lid). Cans of soda/energy drinks are not allowed. Fast food is not allowed in the classroom.

Exams

Exams are a way for you to show me what you have learned (and please show all your steps so I can see this!) and to give you a sense of accomplishment! They are meant to be challenging and not just homework problems with the numbers changed. I really want to prepare you for university level math classes–so some exams may be longer or more challenging than others. Remember that I do grade fairly and my goal is to push you to succeed and excel in this class. I often give hints in class as to exam problems (another great reason to come to class!), and I will post study guides in Canvas along with the best way to review for each exam.

- Four one hour exams are given during the semester–see Canvas for the exact dates.
- Attendance required for all exams–I do NOT drop the lowest exam score.
- "Make-up Exams" are given only in extreme cases and at instructor's discretion; a student is allowed at most one make-up exam. (Documentation must be provided for the instructor to even consider a make up exam. This means you would need a doctor's note, etc.) A "Make-Up Exam" means you will be allowed to replace the missing score with the percentage you earn on the final exam. Please contact your instructor as soon as possible should there be a problem.
- Your student ID is required for all exams.
- During the exams–you will be required to leave your backpack and all non test items at the front of the room, including cell phones and smart watches. Only your pencil/eraser and calculator will be allowed during the exam, and there will be a calculator check. Should you need to leave during the exam please ask for permission first before leaving and leave your cell phone with me. Not doing these things could result in a 0 on your exam.
- Once the exam is returned, any problem you would like me to revisit must be brought to my attention by the next class session.
- Always keep your exams!

Tentative Test Dates

• Exam 1	Tuesday, March 12
• Exam 2	Thursday, April 11
• Exam 3	Thursday, May 9
• Exam 4	Thursday, May 30
• **Final Exam**	**Thursday, June 13 from 3:15 to 5:15 pm**

Getting Help

Tutoring

The Math Success Center (R-406)
Free tutoring and math counselors are available! Advice: hang out here! Do your homework here!

The Learning Assistance Center (D-300)
Keep the classroom clean, do not bring food into the classroom and leave no trash.

24/7 Online Tutoring
PCC students get 7 free hours!

Support

DSP&S (D-205)
If you have a disability and believe you may need an accommodation such as materials in an alternate format, preferential seating, sign language interpreting/real-time captioning, access to assistive technology and/or test accommodations, per the Americans with Disabilities Act or Section 504 of the Rehabilitation Act please contact Disabled Students Programs and Services in Room D-209 or at 626-585-7127 as soon as possible and feel free to discuss your needs with me in private.

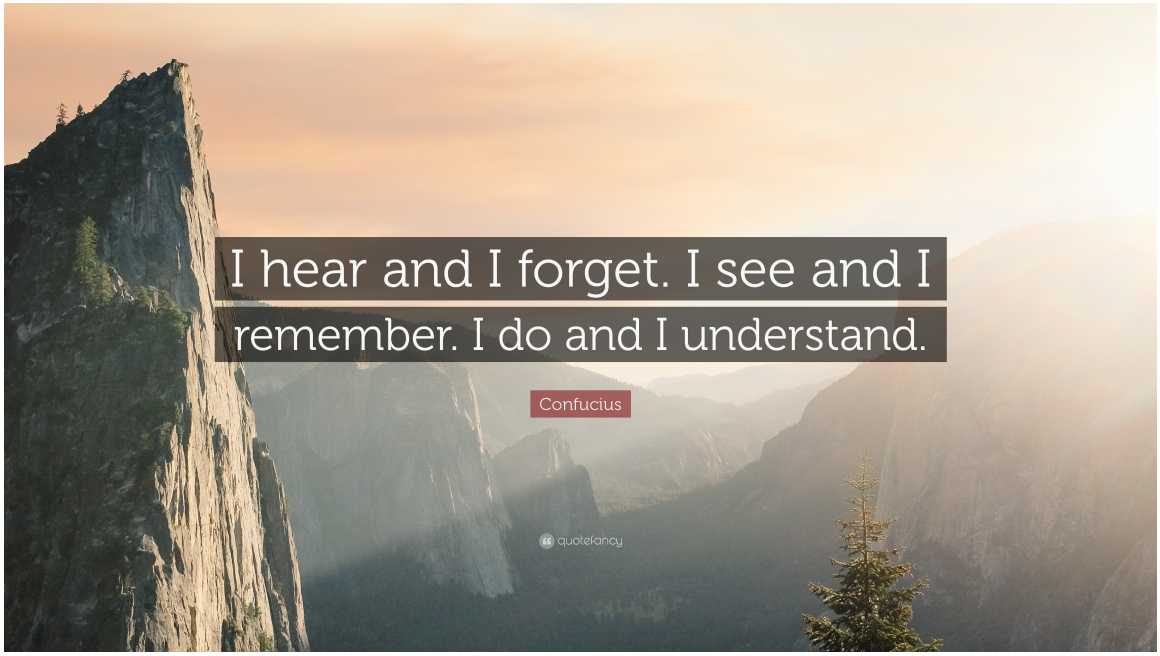
PCC Success Centers
Check out many more success centers on campus.

ME!
Me! Don?t forget your instructor! Please check out my office hours, ask lots of questions. It is better to ask questions early in the semester rather than later, and please do not be afraid to come by office hours. I hold office hours in the Math Success Center at any free table, and like to use the white boards in the center and work out problems together. If you are struggling, I can only work with you to attempt to find a solution but only if I know that a problems exists?please communicate!

Tentative Schedule

This is a tentative schedule for the course and may change as the course progresses.

	Tuesday	Thursday		Tuesday	Thursday
Week 1	Feb_19	Feb_21	Week 9	Apr_23	Apr_25
	Syllabus, 6.1, 6.2	6.3, 6.4		11.7, 11.8	11.9
Week 2	Feb_26	Feb_28	Week 10	Apr_30	May_2
	6.6, 6,7	6.8		11.10, 11.11	8.1
Week 3	Mar_5	Mar_7	Week 11	May_7	May_9
	6.5, 9.1, 9.3	9.2, 9.4*, Review		8.2, Review	**Exam 3**, 8.3
Week 4	Mar_12	Mar_14	Week 12	May_14	May_16
	Exam 1, 7.1	**No class**		10.1, 10.2	10.3
Week 5	Mar_19	Mar_21	Week 13	May_21	May_23
	7.2, 7.3	7.4		10.4, 10.5	10.6, 10.7
Week 6	Mar_26	Mar_28	Week 14	May_28	May_30
	7.5, 7.6, 7.7	7.8, 11.1		Review	**Exam 4**
Week 7	Apr_2	Apr_4	Week 15	Jun_4	Jun_6
	11.2, 11.3	11.4		Review	Review
Week 8	Apr_9	Apr_11	Week 16	Jun_11	Jun_13
	11.5, Review	**Exam 2**, 11.6		**No class**	**Final Exam** *3:15-5:15 pm*
	Apr_16	Apr_18			
	Spring Break	**Spring Break**			



Suggestions for Effectively Reading Mathematics

"Read Actively"

1. When confronted with the task of reading a piece of mathematical text, skim the entire reading first to discern its general outline and to identify its main points and objectives.
2. If necessary, review earlier portions of the textbook (or prior mathematical topics studied) to recall forgotten or unfamiliar vocabulary, techniques or theorems before attempting a thorough reading of the current text.
3. Don't rush! Read slowly! Mathematical writing is typically dense with ideas. Spend as much time as necessary to understand the fully intended meaning of each of the author's arguments and examples.
4. Pay particular attention to the precise statement of new definitions and theorems.
5. Do not immediately skip over a portion of the reading that doesn't make sense in the hope that its meaning will become more apparent later. Because of the linear nature of mathematical writing in which one topic builds from those that precede it, it is very important to fully understand one topic before proceeding to the next.
6. Try to identify the cause of any misunderstanding of the topics being studied. Consider all reasonable methods to resolve the misunderstanding. Whenever possible discuss difficult portions of the text with a friend, study partner, or study group.
7. If all else fails, make sure to mark any portions of the text that remain perplexing so that you may raise these issues subsequently in class.
8. Occasionally authors will intentionally leave some details of arguments or examples to the reader to complete as an exercise. Authors do this for pedagogical reasons and not laziness! As a useful check on your understanding of the material, always fill-in in the details omitted by the author.
9. Always keep pencil and paper handy whenever reading mathematical text. It can be very helpful to highlight important passages, insert marginal notes to yourself (a la Fermat!), and make simple calculations while involved in the reading of the text.
10. Examples in textbooks often come with a moral. Discern the author's main point in providing the example. Make sure you struggle to understand every aspect of the computation, manipulation, or procedure presented in the example.

Course Contract

⋆ ⋆ ⋆ **IMPORTANT ASSIGNMENT – COURSE CONTRACT** ⋆ ⋆ ⋆

Instructions: Please **hand-write** on a separate piece of paper and print your name, the course title, the course section, AND the following statement. Also: SIGN THIS DOCUMENT and turn it in as soon as you certify that you are able to log into Canvas:

"I certify that I have read the entire contents of the Course Syllabus. I also pledge to regularly check the course Sakai site for updates and hold myself accountable for the information."