Math 3A - Calculus I (5 units)

Peralta Class Code 40157

Fall 2015   Berkeley City College

Class Hours & Location: MW 3:30-5:45 PM, BCC Room 052 (Ground Floor)

Instructor: Patrick Zulkowski

Office Hours: 6-6:30PM MW, 1:30-3PM TuTh (RM 353) & by appointment.

Contact Info: pzulkowski@peralta.edu

              Office: BCC Rm 353 (3rd Floor)

              Phone: 510-981-2816

Instructor Websites for additional class information:

BCC Faculty Page: http://www.berkeleycitycollege.edu/wp/pzulkowski/

Course material and forums available through piazza.com

Course Description:
Theorems on limits and continuous functions, derivatives, differentials, and applications: fundamental theorems of calculus and applications; properties of exponential, logarithmic, and inverse trigonometric functions, and hyperbolic functions.

Textbook and Required Materials:

The textbook used to present the course material is:

> *Calculus: Early Transcendentals, 8th Edition*
> *by James Stewart*
> *CENGAGE Learning*
> *ISBN: 978-1-285-74155-0*

The textbook is available for purchase in the bookstore (BCC Room 517, 5th Floor). Both text and student solutions manual are on reserve in the BCC library (BCC Room 131, 1st Floor).

You are responsible for whatever topics we cover in lecture so please attend! This is a difficult course, and you should expect to put in appropriate effort to be successful. You should spend about 15 hours per week outside of class time, studying the material and completing exercises. Some may need *more* time to do well.

There is quite a lot of material in this course, and not much time to learn it. It is your responsibility to attend class regularly to stay on top of the course material.

You will need a non-graphing scientific calculator that can do trigonometric and logarithmic calculations.

Prerequisite: M2 or M1 and M50 or M1 and M52C

Course Exam Schedule

All exams will be held during the regularly scheduled lecture period (from 3:30PM until 5:45PM) in BCC Room 052. The following exam schedule is subject to change at the discretion of the instructor. Please follow piazza, attend lecture, and/or communicate with fellow classmates about possible changes. Large deviations from this schedule should not occur.

> **Exam 1**: Wednesday, September 23rd.
> **Exam 2:** Wednesday, October 21st.
> **Exam 3:** Monday, November 16th.
> **Exam 4:** Monday, December 7th.
> **Final Exam:** Monday, December 14th.

Grading Policy

90% ≤ Course Percentage ≤ 100%	A
80% ≤ Course Percentage < 90%	B
70% ≤ Course Percentage < 80%	C
60% ≤ Course Percentage < 70%	D
Course Percentage < 60%	F

Your course grade is based on five (5) exams and extra credit:

Exams	100%
Extra Credit	3%

At the end of the course I will drop your lowest exam score. This includes the final exam. This means that if you are satisfied with your performance on the first four exams, it is your choice to not take the final exam, receive a 0, and have that exam score dropped.

A grade of "Incomplete" will only be given under dire circumstances beyond a student's control, and only when work completed is of at least C quality. I reserve the right to determine when a student should be assigned an Incomplete for the course.

Exams

Exams will cover material and examples presented in lecture, examples from the textbook, and the exercises you are assigned in homework and for practice.

The final exam will be a cumulative exam, covering all topics presented in the course. *The Final Exam will take place on Monday, December 14th between 3:30PM and 5:45PM in Room 052 BCC.*

Together, the exams, including the final exam, are worth 100% of your course grade.

Absolutely no make-up exams will be given.

You are allowed to use a *non-graphing* scientific calculator during each exam. Other electronic devices such as smart phones and tablets are NOT permitted during exams.

In order to receive full credit on exams, you must write all steps to demonstrate you know the process to analyze and solve the problem.

The best way to prepare for each exam is to read the textbook, do all assigned homework problems, do a few extra problems from the textbook, and supplement these with things with study groups, tutoring, and/or internet tutorials and videos.

Homework

I expect you to read the text as part of your homework assignment. Homework problems will be assigned for each chapter from the textbook. The homework assignments can be found on my BCC faculty page and through piazza.com.

The most important things to practice while doing homework are identifying processes to solve problems and actually writing the steps to arrive at the answers.

Homework will be assigned on Wednesday evenings (but not Wednesdays before an exam week). I will announce the posting of an assignment via piazza.com.

These problems are not to be handed in for credit. Rather, these problems are meant to help you prepare for future exams.

Tutoring is available in BCC's Learning Resources Center, located on the first floor. I encourage you to form study groups with other classmates and help each other with homework. Also, use piazza.com to post questions about course material/homework problems.

On Wednesdays following the assignment of a problem set, I will begin with a short discussion period reviewing the problems assigned. This is an opportune time to see more examples done and ask questions. **Come prepared to ask questions based on your attempts at the homework assignment!**

Extra Credit:

You have an opportunity to earn extra credit in this class if your performance on an exam warrants it. To earn an additional 3% towards your final course percentage, you may complete the list of extra credit problems posted on piazza.com and on my BCC website. These problems are meant to be challenging extensions of topics we will discuss throughout the course. In order to receive full credit, your work must be neat and legible and your arguments must be logical and clear. **These problems are due on the last day of class before finals week (Wednesday, December 9th).** In the event an extra credit problem requires graphing, I highly recommend using http://graphsketch.com. The site allows you to produce jpeg files of plots of mathematical functions.

Grade Formula and Policies:

I will post your exam/extra credit grades via Moodle. **It is your responsibility to track these grades and ensure agreement between my records and the graded material you receive back from me during lecture and/or office hours.**

Once I have computed all letter grades after the final exam week, I will post final course percentages on Moodle. I will announce to the class via piazza.com when this occurs. **You will then have 24 hours to contact me regarding any verifiable discrepancies between my Moodle records and your graded course work. After 24 hours have elapsed, I will submit the letter grades. Beyond this point, no changes to your letter grade will be made.**

As mentioned above, your final course percentage is determined by the best 4 out of 5 exams (worth a total of 100%), and extra credit assignments (up to 3%). The final course percentage formula is given by:

$$\frac{1}{4}\left(\frac{exam\ 1\ score}{exam\ 1\ total} + \frac{exam\ 2\ score}{exam\ 2\ total} + \frac{exam\ 3\ score}{exam\ 3\ total} + \frac{exam\ 4\ score}{exam\ 4\ total} + \frac{final\ exam\ score}{final\ exam\ total} - lowest\ fraction\right) + 0.03 \times \left(\frac{extra\ credit\ problem\ set\ score}{extra\ credit\ problem\ set\ total}\right)$$

For example, suppose a student receives the following scores:

Exam 1: 23 out of 27 points
Exam 2: 13 out of 19 points
Exam 3: 30 out of 30 points
Exam 4: 21 out of 29 points
Final Exam: 35 out of 50 points
Extra credit problem score: 13 out of 25.

Then the final course percentage for this student is

$$\frac{1}{4}\left(\frac{23}{27} + \frac{13}{19} + \frac{30}{30} + \frac{21}{29} + \frac{35}{50} - \frac{13}{19}\right) + 0.03 \times \left(\frac{13}{25}\right)$$

or 84% which is a B.

Class Conduct:

You must attend class regularly and show up to take all exams on the days they are given. I will take attendance regularly and reserve the right to drop a student from the class who has missed four consecutive lectures without contacting me with a valid reason. Do not assume that I will automatically drop you if you merely stop attending class. Anyone whose name appears on the final grade roster who has not been attending class will receive an F.

At the beginning of each lecture, I will pass out an attendance sheet listing all students registered in the course. You are required to provide your full signature next to your printed name on the attendance sheet. If your name is not printed on the sheet, you are not registered for the course. You must officially register for the course by the end of the second week of class. If you have difficulty registering for the course, please speak with me as soon as possible.

While attending class, you must help to maintain a decent learning environment. Please be prompt to lecture. I make every effort to be in lecture on time and I expect the same from you. Latecomers are disruptive to the rest of the class. Please plan to stay for the entire period. I reserve the right to begin taking one (1) percentage point off your final grade total for every time you are late to class or leave early. If you have a valid reason (subject to my approval) for arriving late or leaving early, please let me know as soon as possible to avoid penalties.

It is paramount to have an open learning environment in class. If you are behaving in a manner that inhibits me from teaching or anyone around you from learning, you will be asked to leave.

Please follow guidelines of good behavior. You are expected to behave in a courteous manner both toward your classmates and me at all times. Profanity is unacceptable. I reserve the right to drop any student from my class at any time during the semester if the student's behavior is consistently disruptive, disrespectful and/or not meeting the code of student conduct of Berkeley City College (BCC Code of Conduct).

Please turn off cell phones before entering class. Use of electronic equipment such as laptops, iPods, cell phones, etc. resulting in distraction of the instructor or other students will be considered disruptive behavior. The student responsible will be asked to leave. I reserve the right to drop any student who consistently interrupts class through inappropriate use of electronic equipment.

Those who perform poorly on an exam then fail to take the next one will be dropped. Again, do not assume that I will automatically drop you.

Piazza and Student Conduct:

If you are enrolled in the course, I will grant you access to the piazza forum for Math 3A. You may access the forum by signing in via https://piazza.com.
If you wish access to the Math 3A piazza forum, you must register with piazza using the course code "M3A40157". Contact me via email if you encounter problems registering for the forum.

Piazza is a free web service designed to "connect students, TAs and professors so every student can get the help they need when they need it." Please familiarize yourself with the capabilities of piazza.

I **strongly prefer** that you post questions you have about the course and/or course material on the piazza forum since (a) you are more likely to receive a quick and correct answer from either your fellow students or myself than emailing me alone via my Peralta address, (b) answers to your questions may benefit the whole class, and (c) an open forum builds a sense of community.

I will make announcements and post course material via piazza.com and my faculty page, so it should prove to be a very useful tool for your learning.

I ask you to use piazza.com to relay to me your concerns regarding the course, suggestions for improvement, and encouragement if I did something in class that you found particularly helpful to your learning experience.

You do not need to use piazza to pass the course, nor do you need to reveal your identity on piazza if this makes you uncomfortable. You may choose to post questions/comments anonymously and I will honor your privacy.

My policy of classroom behavior carries over to the piazza forum. If you are behaving in a way that impairs your classmates' ability to learn, creating a hostile environment or violating the terms of agreement of piazza (https://piazza.com/legal/terms), I will, under these circumstances, revoke your anonymity and remove you from piazza in accordance with the BCC Code of Conduct (BCC Code of Conduct).

Cheating Policy:

Cheating is a very serious offense that I will not tolerate. If you are caught cheating on an exam you will be given a grade of 0% for that exam. Both, or all, parties involved will be charged. In addition, your grade will drop by one level. No one caught cheating will earn an A in the course, for instance.

Offenses during an exam include, but are not limited to, talking to another student during an exam, staring at another's exam for answers or ideas, copying another's exam, using prohibited materials such as notes, graphing calculators or electronic devices during an exam.

Student Learning Outcomes:

Upon completion of this course, students will:

1. Find limits and use limits and limit laws to determine whether a function is continuous, to find the derivative of a function and to evaluate a definite integral of a function.

2. Find derivatives of polynomial, rational, exponential, logarithmic, trigonometric, and hyperbolic functions and sums, differences, products, quotients, powers, and compositions thereof.

3. Solve application problems including minimization, maximization and rate of change problems; use limits and derivatives to analyze and graph functions.

4. Solve basic integration problems; calculate definite integrals, the area under or between curves; apply the Fundamental Theorem of Calculus to solve real world problems.

Justification for the Course:

Meets AA degree and transfer requirements.

Important Dates: BCC Fall 2015 Academic Calendar

Sept. 6 – Last day to drop regular session classes w/o "W" appearing on transcript.
Sept. 6 – Last day to drop regular session classes and receive a refund.
Sept. 6 – Last day to add regular session classes.
Sept. 7 – Labor Day
Sept. 14 – Last day to file for P/NP grading option for regular session classes.
Nov. 11- Veteran's Day
Nov. 14 – Last day to withdraw with a W.
Nov. 14 – Attendance Verification Day.
Nov. 26-29 – Thanksgiving break.
Dec. 14th – Final Exam

Students with Disabilities:

Berkeley City College is committed to providing reasonable accommodations for all individuals with disabilities. Any student with a documented disability needing academic accommodations is requested to speak with Programs & Services for Students with Disabilities (PSSD), located in Room 261 and the instructor as early in the semester as possible. I encourage any student who suspects they may have a learning disability to contact PSSD for assistance. They can be reached by phone at (510) 981-2812 or 2813. All conversations will remain confidential.

Disclaimer:

All information in the syllabus is subject to change, if I deem it necessary. Any changes will be verbally announced during a class session and reiterated via class email.

Berkeley City College's mission is to promote student success, to provide our diverse community with educational opportunities, and to transform lives.