Greensheet for Math 1A – Calculus I   Winter 2018

Class	Math 1A.03 / 1A.11	Instructor	Bert Lo
Lecture	MTWThF 8:30am – 9:20am / 12:30pm – 1:20pm		Room S54A
	Room S54		(408) 864-8268
Office Hours	Room S43 (Tutorial Center)		**http://nebula2.deanza.edu/~bert OR**
	MTWTh 9:30am – 10:00am & 1:30pm – 2:00pm		**google "Bert Lo"**

Course Outline   http://www.deanza.edu/publications/catalog/search/outlinepublic.html?searchID=MATH1A

Text   Calculus: Early Transcendentals (8th Edition)
James Stewart
Cengage Learning 2016

Grades   Your grade will be determined by your scores on a prerequisites test, quizzes, 3 midterms, a final exam
and a personal development exercise.

Prerequisites Test	30 points
Quizzes	210 points (30 points × 7)
Midterms (3)	450 points (150 points × 3)
Final Exam	300 points
Personal Development Exercise	10 points

A+	at least 970 points	A	930 – 969 points	A–	900 – 929 points
B+	870 – 899 points	B	830 – 869 points	B–	800 – 829 points
C+	770 – 799 points	C	700 – 769 points		
D	600 – 699 points				
F	0 – 599 points				

Calculator   TI-83 / TI-84 (Plus and Silver Editions allowed)

- Some tests will be no-calculator or require restricted models of calculators.
- Bring your calculator to every lecture, quiz and exam (except when instructed otherwise). Always carry a complete set of extra working batteries.
- During lectures and office hours, I can only provide help using the listed calculators. I do not provide any calculator help during quizzes and exams.
- Calculators which do symbolic mathematics (eg. TI-89/92/NSpire) are not allowed on quizzes or exams. You may use a TI-89 or TI-92 for lectures and homework, but you must have access to and know how to use one of the permitted calculators for quizzes and exams. If you only bring a TI-89 or TI-92 to a test, you may need to complete the test with no calculator.
- You may use a TI-82, TI-85 or TI-86 in place of the listed calculators. However, I do not provide help with those.
- You may not share calculators during quizzes or exams. You may not give another student your calculator if you finish a quiz or exam early.
- I do not lend out my own calculator.

Attendance   Regular and punctual attendance is important to succeeding in any math class.

- You are expected to attend all classes, arrive on time, and stay for the entire class.
- If you are not present during any part of any lecture, you are responsible for getting all lecture notes, homework assignments, handouts and announcements missed. You should arrange to get these from your fellow classmates. (I will not repeat lectures, during office hours or at any other time.)
- When you come into class, you will sign in on a spreadsheet at the front of the class. The spreadsheet will keep a running total of how many days you are late, and how many days you are absent. If you arrive late, sign in at the end of class to avoid disturbing the lecture.
- If you are absent on the first day or for more than 25% of either of the first two weeks' classes, I will drop you from the class, unless you have contacted me & made mutually agreed-upon arrangements beforehand.
- If you are absent more than 5 times or late more than 7 times (by even 1 second according to the spreadsheet) before the end of the 7th week, you may be withdrawn from the class. Lates on quiz & midterm days will not be counted. Excused lates and absences for serious issues must be supported by documentation (eg. accident, medical or police report). Unexcused early departures are considered absences. (NOTE: This attendance-related withdrawal policy will not apply if you score more than 80% on every midterm.)
- The only other circumstance under which I will drop or withdraw students myself is disruptive classroom behavior (see below). If you do not want to stay beyond the 8th week, you must officially withdraw from the class at Admissions and Records before the end of the 8th week. If you stop attending and do not officially withdraw yourself, you will receive an

F for the course.

Readings   Reading the textbook every day helps you understand what we discuss in class. It also helps clarify the material by giving examples which you can study at your own pace.

- Reading a math textbook properly means understanding all the terminology used in the book, and working out the given examples yourself and checking if you are able to get the same results as in the book.
- You are expected to read the sections of the textbook every day, <u>before</u> the corresponding lecture. You may not understand everything the first time you read it, but it will help you be more comfortable with the language used in class, and make it easier for you to focus during lecture. It will also give you a chance to prepare your questions to ask in class.
- Some concepts are presented differently in the textbook than in lecture, in ways which you may find more in line with your learning style.
- Some explanations are given in more detail in the textbook than in lecture. I will say things in lecture which I might not write on the board – you will find most of those "missing" notes in the textbook.
- Examples and exercises from the textbook will appear on tests.
- I believe that reading the textbook daily accounts for about 20% of your learning in a math class. If you do not read the textbook each day, you should not expect to score higher than a C, and you may likely score worse.

Homework   Doing homework on a daily basis helps you to really understand the material, and makes lectures easier to follow. It allows you to discover and correct your confusions and misunderstandings, so you'll be less likely to make the same mistakes during quizzes and exams. Homework also develops critical thinking, since **you will be asked to consider problems which are not explicitly discussed in lecture**.

- Homework will be assigned each day but will not be collected or graded. It is your responsibility as college students to check that your answers and solutions are correct, and to correct any mistakes or misunderstandings.
- You should work in groups of 2 to 4 people on homework. Everyone should do all the homework separately, then discuss the questions you could not do or had difficulty with. Do not copy from one another. Do not simply split the assignment, then do a fraction of the total work and exchange solutions. (This splitting method usually results in everyone in the group failing from lack of practice.)
- Homework will be assigned for each lecture section. You should do as much of it as possible that day, ask questions about it the next day, and have it completed by the second day after the lecture. The longer you wait after lecture before you do the corresponding homework, the less you will remember the lecture, and the more you will need to relearn the lecture before you can do the homework.
- You should expect to spend at least 10 hours a week outside of class on homework, or an average of at least 2 hours per day. Each day, you should be finishing yesterday's homework, doing as much of today's homework as possible, and reading ahead for tomorrow's lecture.
- Don't let the homework pile up. Because we operate on the quarter system, we will cover the material fairly quickly. If you fall behind in homework by even just a few days, the lectures will get harder to understand, and the homework will take more and more time the further behind you get. So, a 2 hour homework set might take 6 hours to complete if you are behind by a week, and that still doesn't include all the other old homework you have to finish up.
- Give each question a solid effort before you start looking at the solution manual or asking someone for help. You will learn much more from trying to solve a problem yourself, than from watching someone else solve it for you. (I can watch other people play basketball all day long, but I will only really improve when I pick up a ball and start shooting baskets myself.) Reread the notes or textbook, or search for similar examples for ideas on how to proceed, then try again. <u>IF YOU ONLY FOLLOW THE SOLUTIONS IN THE SOLUTION MANUAL, BUT YOU DO NOT LEARN TO SOLVE THE PROBLEMS WITHOUT HELP, YOU WILL PROBABLY FIND THAT YOU HAVE GREAT DIFFICULLY WITH THE PROBLEMS THAT APPEAR ON TESTS.</u>
- Homework assignments will only represent part of what you are expected to master. If you only do the assigned problems, you might or might not be able to achieve a C in the class. If you want a higher grade, you should do extra problems on your own, in order to get enough practice to truly master the material. Once you know how to do a certain type of problem, do another similar one to make sure you can do it without an example to follow. Then do another one. The more practice problems you do, the more confident you will feel, and the better you will do on the tests.
- I believe that homework accounts for about 50% of your learning in a math class. You should not expect to pass the class if you do not keep up with the homework. If you don't think you can commit at least 10 hours a week to this class, take it another quarter when you can make that time commitment.

Quizzes   Quizzes are designed to motivate you to keep up to date on the homework.

- Quizzes will be given periodically throughout the quarter. Each quiz will correspond to several related sections from the textbook. (See the tentative schedule for details.) The exact day will be announced 2 days in advance. There are no make-ups for missed quizzes. Some quizzes will require you to work in teams of two, and you may be required to switch partners for different quizzes, so you should find a study group and begin studying together starting the first day.
- There will be at least 240 total points available across all quizzes combined. So, you can miss or do very badly on one quiz without impact to your grade.
- Quizzes will cover sections up to and including 2 days before the quiz. If you do the homework the day of the lecture,

and ask questions the next day, you should be ready for the quizzes.

- Some quizzes may be non-calculator, so you will be required to perform basic arithmetic, and know special trigonometric, inverses trigonometric, radical, rational exponent and logarithmic values on your own.
- All tests end at the time stated. If you continue writing on your quiz, midterm or final exam after that time, you will receive a 0 for it.
- Some quizzes will be graded by you. (The details are in the Self Grading handout and on my website.) This will help you get a better understanding of your errors, how to improve, and how to present mathematical work correctly. I reserve the right to give you a 0 on a quiz, if it appears that you are being overly generous in grading yourself. If you alter the work on your quiz during grading, that is considered cheating (see Academic Honesty).
- A prerequisites test will be given at the end of week 1 and will be based on prerequisite materials from algebra, precalculus and trigonometry. See my website for review materials.

Midterms   There will be three midterms during the quarter.

- Midterm dates will be announced at least 3 days before the corresponding midterm is given.
- Midterms will begin promptly when class starts, and will last 50 minutes.
- No midterm scores will be dropped. Make-up midterms will only be allowed in the event of serious personal illness, injury or emergency, and must be supported by documentation (eg. accident, medical or police report). You may be given only 1 day's notice before a make-up midterm will occur.
- The expectations for midterms and quizzes are very different. Because quizzes are given 2 days after material is taught, you may be given more time, because you are just starting to incorporate the subject matter. For midterms, I assume that you have had much more practice with the material, so that you are able to identify and execute solutions within a much shorter timeframe.
- To be fully prepared for the midterms (and final exam), consider creating individual strips of paper, each with a different problem, definition or theorem, throw them all in a hat, then draw them out in random order and solve each. This will give you practice in identifying solution techniques without benefit of knowing which section the solution might be found in. Also consider creating and solving your own problems within your homework group.
- There will be demerits if your phone, tablet, computer or other noisemaking device makes an audible noise during a midterm or final exam. The demerit will consist of 10% of all points available on the test.
- If you score higher on your first midterm than on your second or third midterm, I will replace your lowest midterm score with the average of that score with your score on the first midterm. Only one of your second or third midterm scores can be replaced in this way. The first midterm score cannot be replaced. So, it is to your benefit to begin studying regularly right away.

Final Exam   There will be a comprehensive final exam during the 12th week of the quarter.

- The final exam will last 2 hours.
- No arrangements will be made to reschedule the final exam. Do not plan on traveling out of the area before the final exam. (If a serious personal emergency prevents you from taking the final, you may request an incomplete beforehand. You will not be able to take the final exam before the next quarter begins.)

Personal Development   Keeping a journal encourages you to take responsibility for your own progress and success.

- You will be given a score calculator to help you track your scores. Completing the score calculator is optional. However, if you ever wish to discuss your grade with me, you will be required to bring your completed up-to-date score calculator with you.
- At the end of the quarter, you will complete a personal development exercise regarding beneficial and detrimental study habits.

Enrolment   You are responsible for handling all issues related to your enrolment.

- If you wish to drop/withdraw from the class, do so at Admissions and Records before the end of the 2nd/8th week.
- If you do not pay for your classes on time, you will be dropped from the class. If you then wish to re-enroll, you will be moved to the end of the waiting list.
- I will check the class list frequently. If you are not enrolled, I will not grade your work, and I will give your seat away.

Classroom Behavior   Respectful participation in the classroom learning process is strongly encouraged.

- Feel free to ask questions to the instructor, and answer questions asked by the instructor. Discussions are to be focused on the class material, concepts, homework and policies. Private conversations can wait until after class. (If you feel you might need a friend to translate during lectures, please talk to me about your situation this week.)
- In order to encourage participation, you may earn up to 20 bonus points based on your level of participation (as described above), which will be added directly to your score for the quarter. If you are uncomfortable with speaking up in class, you can also earn the bonus points by asking questions during office hours.
- Disruptive, distracting or disrespectful behavior in the classroom is unacceptable. (This includes anything resembling

texting, using cell phones / tablets / computers, sleeping, doing homework from this or another class.) You will be asked to leave and it will count as one absence. If I have to ask you to leave twice (for the same or separate incidents), I will act to have you suspended/withdrawn from my class.

- If you arrive late, wait until the end of class to sign in.
- Silence all noisemaking devices before you enter the classroom. This includes phones, tablets, computers and other such items. You may set your phone to vibrate mode only if you are expecting an urgent call.

Academic Honesty

Cheating is the act of trying to get credit for work that is not yours. I have a **<u>zero tolerance</u>** policy towards cheating.

- Cheating includes (but is not limited to): communicating with anyone else during any type of test; copying or submitting work from someone else or from any source (eg. book, website); altering or interfering with grading or attendance taking; using any electronic equipment during quizzes and exams that has not been authorized (eg. cell phones, tablets, computers, symbolic calculators); helping another student cheat. (This is not an exhaustive list.)
- My zero tolerance policy towards cheating is: if you are caught cheating, I will give you an F for the course (no second chances).
- In addition, if you are caught cheating, you will be reported to the division dean and Student Development, who may impose much stricter consequences (eg. probation, suspension, expulsion).

Help

DeAnza College wants you to succeed, and we will help you as much as possible.

- Get help as soon as possible. Don't wait until you are 2 or 3 weeks behind class before asking for assistance.
- I will do all I can to help you, if you ask for help first. You must take responsibility for seeking assistance – it will not come looking for you.
- Some students begin using the help services during the 1st week. To start, learn where the services are located, when they are available, and if you have to follow any special procedures to use them.

There are three primary sources of help if you are having difficulty with the material in this class.

- Homework group: Contact the other members of your homework group electronically or by phone, or arrange to meet up for more in-depth discussions.
- Office hours: I have office hours Mondays to Thursdays (except holidays), no appointments necessary. If my office hours are not convenient, I can occasionally schedule other times to meet. Just ask.
- Math Tutorial Center: Free tutoring is available on either a drop-in basis, a regular weekly basis (with a designated tutor), or online 24/7. Ask in S43 or visit https://www.deanza.edu/studentsuccess for more details. In addition, if enough people ask for it, I will work with the tutorial center to get a special group tutoring set up for this class.
- Additionally, if you have or think you might have a disability, the Disability Support Services (DSS) and Educational Diagnostic Center (EDC) offer additional services. In addition to helping students with dyslexia, attention deficit disorder and other commonly recognized learning disabilities, these services are also designed to help students whose abilities and efforts significantly exceed their actual achievement. If you feel this describes your situation, please talk to me, so I can put you in touch with the appropriate people.

Other Notes

Some specific advice on succeeding in Math 1A.

- Students who have previously learned to find derivatives using differentiation shortcuts may find they do worse than they expect in Math 1A. That is because differentiation is only one third of Math 1A. The other two thirds cover the foundations of calculus, the justification of the differentiation shortcuts, and the meanings, implications and uses of derivatives. Also, Math 1A contains quite a few definitions and theorems, not just algebraic manipulations.
- If your foundation in algebra, precalculus and trigonometry is not good, you may find yourself struggling in Math 1A. It is strictly your responsibility to review your prerequisites as needed. Class time will not be spent on review of material from prior classes. Take the diagnostic tests preceding chapter 1 of your textbook, and come to office hours this week if you have any difficulty. (NOTE: Some students have failed my classes multiple times, wasting many months and thousands of dollars, before going back and taking the necessary prerequisite classes.)

Some general advice on succeeding in my classes.

- Check my website daily. Any updates are usually made before 7pm. You are responsible for all announcements and handouts on my website regardless of whether they are also announced in class.
- I talk a lot (to explain almost everything I present), and I write a lot (for non-auditory learners). Taking notes is useful, but if you spend the entire class only taking notes, it is no different than copying from the textbook, and you may miss out on the spoken clarifications of what is being explained. Consider scheduling with your homework group, so that each day, a different person is responsible for writing down all lecture notes while everyone else in the group pays attention and participates in lecture. After class, make copies of the notes as soon as possible, distribute them to the group, and clarify any details the note taker might have missed.
- When taking tests of any type, first glance quickly at all questions and their point values, so you have a sense of what is expected.

- Try not to spend too much time on a problem in excess of its point allocation. For example,
  if a quiz lasts 30 minutes and is worth 30 points, each minute is roughly worth 1 point,
  so you should spend about 15 minutes on a 15 point question.
  If a midterm lasts 50 minutes and is worth 150 points, each minute is worth roughly 3 points,
  so you should spend about 5 minutes on a 15 point question.
  If a final exam lasts 120 minutes and is worth 300 points, each minute is worth roughly 2½ points,
  so you should spend about 6 minutes on a 15 point question.
- Grading gets progressively stricter from the quizzes to the midterms to the final exam. On the quizzes, you may earn a considerable amount of partial credit if you only make one algebra mistake. On the midterms, you will earn less partial credit for the same type of mistake. On the final exam, you may earn no partial credit for the same type of mistake as a good portion of the exam is multiple choice
- I do not curve any tests, even if the class median is an F. I have found that when I curve, students actually do worse later on. When I don't curve, the students who are serious about getting A's and B's make adjustments to their study habits and earn those grades outright anyway.
- If you do not start studying regularly during the first week, you should drop the class today today and give someone from the waiting list an opportunity to succeed. If you fail the 1st midterm, that score will **<u>NOT</u>** be replaced (see **Midterms** section above), and could result in an overall drop of an entire grade for the quarter.
- As room scheduling permits, if a test is given at the beginning of class, you may start the moment you enter the classroom, even if it is before the official class start time.

- Things which really annoy me to no end, and which I will address in no uncertain terms:
  - ▶ students who cheat – they have no regard for their fellow students' efforts, nor for the time I waste dealing with the disciplinary actions (FAIR WARNING: in order to save time dealing with these issues, I collect evidence throughout the quarter, but may only confront students at the end)
  - ▶ students who don't read the greensheet, and then ask me something which is clearly spelled out there
  - ▶ students who don't stop writing on their tests when I tell them to, and then whine when I give them a 0 even though it is clearly spelled out in the greensheet
  - ▶ students in precalculus and above who don't learn definitions and theorems, even though I stress repeatedly that they will appear on tests
  - ▶ students who don't study during the first third of the quarter, fail the 1st midterm, and then complain that the midterm is too hard, even when it looks pretty much like their homework
  - ▶ students who don't read the book, do their homework and attend class regularly, yet walk into class late, make a spectacle of themselves, and act as if the instructor, the material and the rest of the class are not worthy of respect

Despite the length and language of my greensheet, I'm actually very supportive of students who are serious about learning and working hard to be prepared for whatever higher math may come their way. If that doesn't describe you, you might find me overbearing and obnoxious.

Student Learning Outcome(s):

*Analyze and synthesize the concepts of limits, continuity, and differentiation from a graphical, numerical, analytical and verbal approach, using correct notation and mathematical precision.
*Evaluate the behavior of graphs in the context of limits, continuity and differentiability.
*Recognize, diagnose, and decide on the appropriate method for solving applied real world problems in optimization, related rates and numerical approximation.