

Course : Math 1B.01 Integral Calculus **Instructor:** Mr. Charles Klein
Days : M – F Fall 2015 **Contact:** 408 864 8213
Time : 7:30 –8:20 AM Room E–33 **Office Hours:** S–76g Mon–Thurs 8:30–9:20 AM
email: kleincharles@fhda.edu **website:** faculty.deanza.edu/kleincharles/

Text: Calculus–Early Transcendentals, 7th Ed.–J. Stewart; a graphing calculator is required; (TI–83/84/86 or equivalent)

Overview: Integrals, and applications of integrals.

Student Learning Outcomes (What math from this course you should be able to do at the end of the quarter.)

1. Analyze the definite integral from a graphical, numerical, analytical, and verbal approach, using correct notation and mathematical precision.
2. Formulate and use the Fundamental Theorem of Calculus.
3. Apply the definite integral in solving problems in analytical geometry and the sciences.

Pre–requisite: Math 1A (with a passing grade of C or better) or equivalent.

The use of cell/portable phones, beepers, or pagers in class is considered impolite and disruptive, if not rude. Please turn them off before entering class. If your phone/beeper goes off during a mini-test/exam, your paper will be taken, and you will not be allowed to continue working on it. Your score will be based on the work done up to that point.

S. O. P. 's: In addition to this course syllabus, the first page and the "General Information" page of the instructor's **website: faculty.deanza.edu/kleincharles/** is also considered part of the **course syllabus**, and hence you are also responsible for information contained therein.

Attendance: Since mathematics is cumulative in nature, attendance at all classes is expected. Students should be aware of appropriate drop dates (Oct. 4 , Nov. 13 –See special notes on Dropping a Class in the General Information page of the instructor website). *It is the student's complete responsibility to drop this class as I will not drop anyone from the class.*

Homework: Homework assignments represent the student's opportunity to learn what was taught, by practicing both mechanical skills and problem–solving techniques. The student is responsible for all problems associated with the sections of the text covered each class meeting.

Mini–Test: Mini–Tests will be given intermittently throughout the quarter. Short (a day or so) notice will be given, and a missed Mini–Test (~40 pts. but will vary) cannot be made up. Mini–Tests will be worth a total of approximately 150 points.

Exams: Each exam will be announced about a few days in advance. Students are required to take exams when scheduled, including the final. There are no makeup's of any kind; the final exam will count twice; one lowest exam score will be dropped. For example, if one of the midterm exams is the lowest, then the final score will replace that midterm score. (i.e., exam scores of 50 , 60 , and 70 , and a final exam score of 65 will give you exam points of 60 , 65 , 65, 70 - which means you just gained 15 free points (average goes up). However, with exam scores of 50 , 60 , and 70 , and a final exam score of 40 will give you scores of 40 , 50 , 60 , 70 , and thus your overall average will be pulled down.

- *If your lowest exam score is the result of cheating or cell phone mis-use, that score will not be dropped, but the next lowest will.*
- If you need to leave the room during a mini-test or exam, including the final, your paper is turned in and you are done.
- At the end of the minitest/exam, you will have **ten seconds** to turn in your paper. If it is turned in late, a late penalty (see below) will be assessed. It is not fair for you to continue working while others are turning in their work.

All work on quizzes and exams must be neat, complete, and logically presented; where work is required, partial credit will be given provided the work justifies such credit: a correct answer by itself will not earn full credit (except on a multiple choice question).

Points will be assessed/deducted not only for the correctness of the mathematics, but also for the presentation of the math. Check the "General Information" page of the instructor's website for further information/details, etc. **THE PRESENTATION OF YOUR MATH IS AS IMPORTANT AS THE ACCURACY OF YOUR MATH.**

A penalty of a minimum of 10 % off, up to no credit, will be assessed for any mini-test, exam or other assigned work that is turned in late.

Extra Credit: There is typically an additional extra-credit problem/question on each exam and mini-test. "XC" problems are also offered "in addition to" rather than "in place of" regular class-work, and are provided at the instructor's discretion; these are generally due the next class. There is no makeup for any missed extra credit. Extra credit is not available to make up for poor quiz/test performance.

Some exams, including the final, in whole or in part, may be multiple choice. The day and time for the final is already set; consult the DAC schedule of classes. Do not ask to take the final early.

Cheating, which includes, but is not limited to: looking at another's paper, copying, passing notes or other information, etc., will not be tolerated. The first instance will result in a zero on a mini-test or exam, and the student referred to the Dean for academic discipline. It is possible that as a result of cheating, the student could receive a grade of F for the course.

Homework Problems:

Expect problems to be given each day. Remember, you should be prepared to spend 2–3 (maybe even more) hours per day (including weekends) for review, homework, and study (see General Information). Each Friday, certain problems from the sections covered during the previous week will be assigned, and they are to be turned in at the beginning of class on the following Monday.

The assigned problems (see below) basically cover the variety of skills you will need. It is suggested you do additional problems of each type to gain additional expertise. You should anticipate spending 2–3 hours per day (7 days/wk) doing homework problems and studying.

It is strongly suggested you get the names and email/phone numbers of several students in the class so that you may contact others for any missed assignments or XC, should you be absent.

- It is highly recommended that you form study groups with others in the class. Take the initiative to form that group; one of the best ways to learn something is to try to explain it to someone else.

**Take advantage of the video tutorials that are accessible via the instructor's website.
(see left-hand column on home page of website)**

Ch 5	5.1	3, 5, 13, 18, 19, 20, 26	Ch 7	7.3	1, 2, 4, 5, 10, 11, 14, 17, 21, 23, 31a, 33, 35, 43
	5.2	1, 5, 9, 12, 17, 20, 23, 24, 26–28, 33, 41, 42		7.4	1, 4, 5, 7, 10, 13, 15, 16, 18, 27, 29, 32, 39, 47, 48
	Appdx G			7.5	1, 5, 8, 13, 18, 19, 22, 24, 26, 31, 38, 41, 47, 49–52, 59, 65, 74
	5.3	5, 9, 12, 16, 21, 24, 27, 34, 37, 39, 68, 76, 78		7.6	1, 4, 5, 11, 14, 19, 22, 26, 33, 34
	5.4	2, 5, 10, 12, 13, 15, 25, 28, 33, 38, 41, 43, 49, 53, 54, 60		7.7	7, 12, 19, 21abc, 30
	5.5	1, 3, 4, 7, 10, 13, 15, 18, 21, 27, 33, 36, 41, 45, 46, 48, 55, 59, 65, 68		7.8	1, 2, 3, 5, 9, 14, 15, 18, 21, 27, 30, 35, 49, 50, 57, 58, 59
Ch 6	6.1	1–4, 6, 9, 14, 17, 19, 21, 25, 28, 29, 31, 44	Ch 8	8.1	1, 3, 5, 6, 9, 12, 15, 16, 19, 26, 34, 36
	6.2	1, 3, 4, 9, 10, 12, 15, 19, 22, 25, 48, 49, 54, 58, 61		8.2	5, 6, 9, 10, 13, 19, 25, 26, 29ab, 30
	6.3	3, 5, 6, 10, 13, 15, 18, 21, 27, 29, 30, 37, 38, 45, 46		8.3	1, 3, 4, 5, 9, 12, 15, 25, 31, 37, 45
	6.4	1, 2, 4, 7, 8, 10, 13, 14, 16, 21, 24		OP:8.4	1, 3, 5, 6, 10, 13, 19
	6.5	1, 3, 5, 8, 14, 17		8.5	1, 3, 7, 9, 10, 12, 13, 15, 17
Ch 3	3.11	1–6, 7, 9, 12, 21, 31, 35, 38, 39, 47, 48, 51, 57	Ch 9	9.1	1, 2, 3, 6 acd, 9, 12, 15
				9.2	1, 3–6, 11, 21, 24 a
				9.3	1, 5, 6, 9, 11, 14, 19, 21, 25 (don't graph), 39, 44
				9.4	1, 3, 4, 5, 7, 10
Ch 7	7.1	1, 2, 3, 5, 7, 9, 10, 12, 17, 23, 26, 28, 33, 37, 42, 51	Ch 10	10.2	Arc Length: 37–47
	7.2	1, 2, 4, 11, 13, 14, 19, 20, 30, 31, 41, 44, 61, 62, 63			

Exam Schedule :

<u>Exam #</u>	<u>Covering</u>	<u>On or about</u>
1	Ch 5 5	Oct. 2
2	Ch 6/3.11 6	Oct. 19
3	Ch 7 8	Nov. 6
4	Ch. 8 4 (5)	Nov. 20
5	Ch 9,10 5	Dec. 3
Final	Comprehensive	Check Finals Schedule

Grade : Your letter grade will be based upon the *percentage* of total points earned, as compared to the total points possible, according to the following :

<u>From</u>	<u>Points</u>	<u>Percentage Earned</u>	<u>Grade</u>
Mini Tests (approximately)	150	88 – above	A
Exams	500	78 – 87	B
Final	100	68 – 77	C
		55 – 67	D
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Total Points Possible	750	54 or below	F