

DEPARTMENT OF MATHEMATICS AND COMPUTING
LA SIERRA UNIVERSITY

MATH 133 – CALCULUS III (4 UNITS)

REVISED SYLLABUS

FALL 2009

Instructor Wil Clarke. Office: 256 Price Science Center, Phone x2548; home phone 687-4556, please don't call after 10:00 p.m. e-mail: wclarke@lasierra.edu. Web page: <http://www.lasierra.edu/~wclarke> My office hours are listed below. If those are inconvenient, please let me know and we'll find a time to meet that is convenient to each of us. This syllabus will be updated on an ongoing basis. You are responsible for checking my website for the updated version.

Text

1. Larson, Hostetler & Edwards *Calculus* 8th ed. (2006) Houghton-Mifflin, Boston MA
2. Scientific or Graphing Calculator (a TI-89 graphing calculator is highly recommended.)
3. Recommended: MathCAD[®] software if you have your own personal computer. A student version called *StudyWorks* is available in the bookstore for only about \$35.00. There is a summary of useful MathCAD[®] features at my website. I encourage you to check it out.

Bulletin Description Taylor series, plane curves, polar, cylindrical and spherical coordinates, solid analytic geometry, vector-valued functions, partial differentiation and applications, multiple integrals and applications.: MATH 132.

Objective To introduce the student to methods of infinite series, analytic geometry and multi-dimensional functions and calculus. To introduce the student to appropriate uses of MathCAD[®]

Course Requirements

1. **Homework** Homework will be assigned each class period and is due at the beginning of the next class period. Late homework will not be accepted. It is impossible to pass the class without turning in most of the homework. Most assignments will have some problems requiring the use of MathCAD[®]. The MathCAD portions are due Tuesday (for assignments made Thursday and Friday) and Friday (for assignments made Monday and Tuesday).

2. **Quizzes** There may be a five minute quiz at the beginning of each class period. If you miss it, you will not be able to make up this quiz for any reason

3. **Tests** Tests and exams determine most of your grade for this class. Make up tests will not be given (See note under 4, Final Exam below). Students who leave the room during a test or exam will not be permitted to return while it is in progress. You will not be allowed to use a calculator on parts of tests and the final exam. Tests and exams will include MathCAD[®] topics.

4. **Final Exam** A score of 50% or more on the final exam is required to pass the course. The final exam will be divided into five parts. The first four parts will correspond to the four tests listed below. If you do better on any part of the final exam than you did on the corresponding test, I will give you the higher of the two grades for that test. See the note about the final examination schedule below. The MathCAD[®] test will count as the fifth part of the final.

5. **Outside Reading** You are required to read six articles from current journals and report on these in the manner specified in class. You are also required to find two helpful web sites that feature calculus topics, other than those listed in my "Helpful URL's" site. To report on the web sites you find. List the URL, write a brief summary of materials you found that were helpful to you, and print out several web pages as samples of what you found.

6. **Attendance** Attendance is expected and you are responsible for all material presented and assignments made in class. A portion of your grade is based on your participation in class. You are encouraged to ask questions in class. Asking questions can only help your participation grade. Changes in this syllabus become effective after being announced to the class. You are responsible for these, even if you were absent when the changes were announced. The participation grade is mine to give

based only on my perception of your performance. Being absent for 10% or more of the classes will result in an automatic failing grade.

Plagiarism and Cheating You are encouraged to seek assistance from faculty or students in doing your homework. However work that is done primarily by someone else is unacceptable and may result in your failing the course. You are responsible for knowing the policies and consequences of academic dishonesty at <http://www.lasierra.edu/integrity>.

Disability La Sierra University complies with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Any student with a documented disability (physical, learning, or psychological) needing academic accommodations should contact the Office of Disability Services (ODS) as early in the quarter as possible. All discussions will remain confidential. Please contact the ODS (La Sierra Hall, Suite 100 – 951-785-2412) for additional information. Students who qualify for accommodations, must bring their ODS paperwork to their instructor no less than 3 school days before they wish such accommodations to take effect.

Final examination schedule note from the CAS bulletin “A four-day examination schedule allowing a two-hour period for each class is printed in the schedule of classes. Students are required to take the scheduled final examination at the appointed time and place in order to secure credit. . . . Exceptions to the examination schedule are granted only for emergency situations.”

Grading Scheme

Grade assignment will approximate:

		Grade assignment will approximate	
Homework	12%	85–100%	A range
In-Class Tests	48%	75–84%	B range
Final Exam	30%	60–74%	C range
Participation	5%	50–59%	D range
Outside Reading	5%	0–49%	F

There are no such grades as “C-” or “D-” in this class.

Outline:

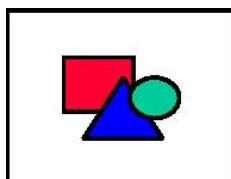
	DATE		Sections	Paper & Pencil Homework	
September	21	M	8.1-8.6	8.1-8.6 review p.589-590 #5-70 (5 th)	
	22	T	8.7-8.8	8.7-8.8 review p.590 #73-86	
	23	W	9.1	9.1 #47-92 (3 rd), 99, 100, 103-108, 117-120	
	24	R	9.2	9.2 #17-22, 36-72 (3 rd), 73-77, 109, 110, 117-122	
	28	M	9.3	9.3 #1-34 (3 rd), 45-50, 79-90	
	29	T	9.4	9.4 #3-27 (3 rd), 29-36, 55-60	
	30	W	9.5	9.5 #1-6, 33-45 (3 rd , a only), 47-62 (3 rd), 65-70, 79-88	
*October	1	R	9.6	9.6 #13-64 (3 rd), 87, 90, 91, 97	
	5	M	9.7	9.7 #13-28 (3 rd), 41, 57, 58, 62, 65, 70, 71	
	6	T	9.8, 10	9.8 #1-46 (5 th) 9.10 #21-26,29,31,34,35	
	7	W	9.9	9.9 #5-26 (3 rd), 53, 56, 62, 63	
	8	R	10.1A	10.1A #1-8, 11-61 (5 th)	
	12	M	Test ch 9	ch.9 test	

	13	T	10.1B	10.1B #66 (slopes only), 86, 90, 103, 105, 106, 107 (a&b only)
	14	W	10.2	10.2 #5-50 (3 rd), 51, 69
	15	R	10.3	10.3 #1-51 (5 th), 75, 76, 77, 81, 82, 99
	19	M	10.4	10.4 #1, 2, 11, 12, 21, 23-26, 59, 60, 73-91 (3 rd), 98, 99
	20	T	10.5	10.5A #1-8 10.5B #11,21,31,34, 45-47,61,62
	21	W	11.1	11.1 #1-56 (5 th), 71, 74, 91, 95-100
	22	R	Test ch 10	ch.10 test
	26	M	11.2	11.2 #5-85 (5 th), 95, 111 (no graphs!)
	27	T	11.3	11.3 #5-30 (5 th), 45,50,52,53,57,65,70,74,75,76
	28	W	11.4	11.4 #9-15 (3 rd), 27-36 (3 rd), 37, 42-51 (3 rd), 53, 54
	29	R		
November	2	M	11.5	11.5 #5-50 (5 th), 60, 81
	3	T	11.6	11.6 #1-6, 7-16 (3 rd) <-describe and 2-d sketch, 45-52
	4	W	12.1	12.1 #1-16 (3 rd), 23-29 (3 rd), 69,70,82,83, 89-91
	5	R	12.2	12.2 #2,3,11-66 (5 th)
	9	M	Test ch 11	ch.11 test
	10	T	12.3	12.3 #3-21 (3 rd), 23-27, 49, 50, 57, 58
	11	W	12.4	12.4 #1-7, 21, 24, 28, 29, 36, 41
§	12	R	12.5	12.5 #1-13 (3 rd), 22-31 (3 rd), 42, 43, 44
	16	M	13.1	13.1 #5,9,10,17,26,27,28,45-52
	17	T	Test ch 12	ch.12 test
	18	W	13.2, 3	13.2 #5-18, 59, 60, 69, 70 13.3 #5-26 (3 rd),55,61
	19	R	13.4	13.4 #1-16, 22
Tnxgiv	23	M		Thanksgiving Recess
	30	M	14.1, 2	14.1 #4-39 (5 th) 14.2 #9-39 (5 th)
December	1	T	14.3	14.3 #38, 39, 41, 23, 26, 27, 28
	2	W		
	3	R	Review	

Final Exam: Monday, December 7 at 2:00 p.m.

* Last day to drop a class with no record on transcript is Friday, October 2.

§ Last day to drop a class with a "W" grade is Friday, November 13.



Εἰ δε τις υμῶν λειπεται σοφιας,
 αιτειω παρα τοῦ διδοντος Θεοῦ
 πα̃σιν ᾿απλω̃ς και μη ονειδιζοντος,
 και δοθησεται αυτω̃.

If any of you need wisdom, you
 should ask God, and it will be
 given to you. God is generous
 and won't correct you for asking.

James 1:5 (Nestle & CEV)

Hour	Monday	Tuesday	Wednesday	Thursday	Friday
8:00	Intro Linear Algebra	Intro Linear Algebra		Intro Linear Algebra	Intro Linear Algebra
9:00					
10:00	University Studies				
11:00	Seminar	Assembly		Chapel	Dept Mtg
12:00	Lunch	Lunch	Lunch	Recommendation	Lunch
1:00				Committee	
2:00	Office	Office	Office	Office	
3:00	Introductory Algebra	Introductory Algebra	Introductory Algebra	Introductory Algebra	
4:00	Calculus III	Calculus III	Calculus III	Calculus III	
5:00	CAS mtg				