

Multivariable Calculus, Section 003

MATH-2063-003 (4 credit hours)

Spring Semester, 2014

Class Room and Class Times: Room 801 of the Old Chemistry Building
Monday, Tuesday, Thursday, and Friday at 11:15 a.m.-12:10 p.m.
except Monday, January 20 (Dr. Martin Luther King, Jr. Day)
and Spring Break, March 17-21

From Monday, January 6 through Friday, April 18, 2014
and the Final Examination on Monday, April 21 at 9:45-11:45 a.m. in Room 801 Old Chemistry

Teacher: Roger Chalkley

Office: Room 4504, French Hall West

Office Hours: 12:20 a.m. - 1:15 p.m. on Tuesdays and Thursdays; 1:25-2:30 p.m. on Fridays

Phone: (513) 556-4074

Textbook: *Calculus – Early Transcendentals*, seventh edition, 2012,
by James Stewart, Brooks/Cole, Belmont, CA

List of Subject Matter: See the next page for sections and problems from Chapters 11 through 13.

Testing and Grading Policy: There will be three 55-minute examinations, a 2-hour final examination, 3 quizzes, and graded homework. Each 55-minute exam will be graded on a basis of 100 points and count as 1/6 of your final grade. The final examination will be graded on a basis of 100 points and count as 2/6 of your final grade. Each quiz will be graded on a basis of 25 points and count as 1/24 of your final grade. The overall homework grade will be based on 25 points accumulated from WebAssign Problems and count as 1/24 of your final grade. The WebAssign page is at <http://webassign.net/> and your key for this course is uc 2917 1491

Quiz 1, Friday, January 17

Examination 1 - Friday, January 31, 11:15 a.m.-12:10 p.m.

Quiz 2, Friday, February 14

Examination 2 - Friday, February 28, 11:15 a.m.-12:10 p.m.

Quiz 3, Friday, March 14

Examination 3 - Friday, April 4, 11:15 a.m.-12:10 p.m.

Final Exam: Monday, April 21, 9:45-11:45 a.m. in Room 805 Old Chemistry

Partial credit on tests is awarded only for work that is mostly correct except for one or two minor errors. You will not be given partial credit for attempting to solve a problem by an incorrect method. You must show your work on the tests. A correct answer without the accompanying correct work will receive no credit; an incorrect final answer accompanied by mostly correct work will receive substantial credit. Also, it is the responsibility of each student to arrange the work in a logical manner and to write legibly. The grade is to be based on the work shown, not what was intended or implied.

Grade of W: Friday- March 14 is the last day to withdraw from the class and receive a grade of W.

The Mathematics Learning Center is located in French Hall West, Room 2133. It is a free, walk-in, mathematics tutoring center for all University of Cincinnati students. The tutoring hours may be found at http://www.artsci.uc.edu/departments/math/learning_center.html

Week	Days	Sections	WebAssign Homework
1	Jan. 6-10	13.1 Vector functions and space curves 13.2 Derivatives and Integrals of vector functions 13.3 Arc length, curvature	Section 13.1 Section 13.2 Section 13.3
2	Jan. 13-17	13.4 Motion in space: velocity and acceleration 14.1 Functions of several variables 14.2 Limits and continuity Quiz 1	Section 13.4 Section 14.1 Section 14.2
3	Jan. 21-24	14.3 Partial derivatives 14.4 Tangent planes and linear approximations 14.5 Chain rule	Section 14.3 Section 14.4 Section 14.5, part 1
4	Jan. 27-31	14.5 (continued) 14.6 Directional derivatives and gradient vector Examination 1, Friday, 11:15a.m.-12:10 p.m.	Section 14.5, part 2 Section 14.6 Section 14.7
5	Feb. 3-7	14.7 Maximum and minimum values 14.8 Lagrange multipliers	Section 14.7 Section 14.8
6	Feb. 10-14	15.1 Double integrals over rectangles 15.2 Iterated integrals 15.3 Double integrals over general regions, Quiz 2	Section 15.1 Section 15.2 Section 15.3
7	Feb. 17-21	15.4 Double integrals in polar coordinates 15.5 Applications of double integrals	Section 15.4 Section 15.5
8	Feb. 24-28	15.6 Surface area 15.7 Triple integrals Examination 2, Friday, 11:15a.m.-12:10 p.m.	Section 15.6 Section 15.7
9	March 3-7	15.8 Triple integrals in cylindrical coordinates 15.9 Triple integrals in spherical coordinates	Section 15.8 Section 15.9
10	March 10-14	15.10 Change of variables in multiple integrals 16.1 Vector fields Quiz 3	Section 15.10 Section 16.1
11	Mar. 17-21	Spring Break (no classes)	
12	Mar. 24-28	16.2 Line integrals 16.3 Fundamental theorem for line integrals 16.4 Green's Theorem	Section 16.2 Section 16.3 Section 16.4, part 1
13	Mar. 31-Apr. 4	16.4 (continued) 16.5 Curl and divergence Examination 3, Friday, 11:15a.m.-12:10 p.m.	Section 16.4, part 2 Section 16.5
14	April 7-11	16.6 Parametric surfaces 16.7 Surface integrals	Section 16.6 Section 16.7
15	April 14-18	16.8 Stokes' Theorem 16.9 Divergence Theorem	Sections 16.8 and 16.9
16	April 21-25	Final Exam, Monday, April 21, 9:45-11:45 a.m.	