Math 241 (Calculus III) Sections 1-4, Spring 2015
Syllabus and Homework

Course Faculty Information:

Role & Name	Email ...@utk.edu	Office Hours	Office Number
Instructor Prof. Fernando Schwartz	fschwar1	Monday 11:10am-12:10pm Friday 2:30-3:30pm	Ayres 244
Recitation 1 Kevin Sonnanburg	ksonnanb	Wednesday & Thursday 3:30-4:30pm	Ayres 234
Recitation 2 Darrin Weber	dweber3	Monday 2:30-3:30pm Tuesday 2-3pm	Ayres 247
Recitation 3 Michael Holloway	mhollo14	Tuesday 10-11am Wednesday 2:30-3:30pm	Ayres 209
Recitation 4 Kokum De Silva	kdesilva	Thursday 10am-12pm	Ayres 223

Course Description: Calculus of functions in two or more dimensions. Includes solid analytic geometry, partial differentiation, multiple integration, and selected topics in vector calculus.
Prerequisites: Calculus II (Math 142, or equivalent).

Schedule:

Lecture	MWF 1:25-2:15pm in EPS 302
Recitation 1 (20397)	R 11:10am-12:25pm in Ayres 123 (Kevin Sonnanburg)
Recitation 2 (20398)	R 2:10pm-3:25pm in Ayres 123 (Darrin Weber)
Recitation 3 (20399)	R 9:40am-10:55am Ayres 110 (Michael Holloway)
Recitation 4 (20400)	R 12:40pm-1:55pm Ayres 124 (Kokum De Silva)

Resources and Materials:
- **Textbook:** *Calculus, Early Transcendentals* (Second Ed.) by Jon Rogawski, W.H. Freeman and Co.
- **Homework System:** WebAssign.
- **Class Website:** All course materials and announcements are posted in Online@UT: bblearn.utk.edu

Purchasing Options:
If you have a copy of the book and have previously purchased multi-term access to WebAssign, you don't need anything else. If you have a copy of the book but don't have WebAssign access, you can buy it at www.webassign.net. If you don't have a copy of the book, you can either buy it and get WebAssign separately (for example at the UT Bookstore), or buy WebAssign with access to the e-book.
WebAssign itself has several purchase options, including single-term access, at www.webassign.net. You can use either a hard copy or e-version of the book. If you buy the e-book through WebAssign you'll most likely have to log in to view it, and internet access would be required.

Calculator Policy: *Calculators are not allowed in exams, and are not required for the class.* However, you can use one for the homework.

Class Grade: Your final grade will be determined from your final score in the class. Letter grades are assigned using the following scale:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Score	90-100	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	57-59	0-56

Class Score: Your final score for the class is computed as follows:

3 Midterms (at 15% each):	**45%**
WebAssign Homework average grade:	**15%**
Quiz average grade (among 6 best):	**10%**
Final Exam:	**30%**

Exams, Dates and Contents:

Midterm Exam # 1	**Monday 2/9:** Sections 12.1-14.3
Midterm Exam # 2	**Monday 3/9:** Sections 14.1-15.3
Midterm Exam # 3	**Wednesday 4/15:** Sections 15.4-16.5
Final Exam (required to pass)	**Wednesday 4/29, 12:30-2:30pm in EPS 302:** All Sections

Important Dates:

Last day to add/drop *without* W	**January 16, 2015**
Last day to drop *with* W	**March 31, 2015**

WebAssign Homework: Weekly WebAssign assignments are due Sunday at midnight. You have 15 tries for each problem (with some exceptions). After 10 tries, 15% will be deducted for each successive try. Try to pace yourself and do the assignment over several days. You may access WebAssign by clicking on the WebAssign button in the toolbar on Blackboard.

Quizzes: Quiz problems will be chosen among the practice homework problems listed below. Quizzes are 20 minutes long and take place in your recitation sections. Quiz dates and their content are the following:

Quiz 1: Jan 15 (12.1-12.5)	**Quiz 5:** Mar 26 (15.3-15.5)
Quiz 2: Jan 29 (12.6-13.3)	**Quiz 6:** Apr 9 (15.6-16.3)
Quiz 3: Feb 19 (13.5-14.6)	**Quiz 7:** Apr 23 (16.4-17.3)
Quiz 4: Mar 5 (14.7-15.2)	

Late Homework Policy: Late work won't be accepted, except with proof of emergency. WebAssign gives you 2-day extensions at a 15% penalty. If something else comes up (such as widespread technology issues), deadlines may be extended for all. You are responsible for dealing with your own tech and/or computer issues.

Make-up Work Policy: There are no make-ups, except in the case of prior arrangement. If you find that circumstances will cause you to miss an exam, you **must notify Prof. Schwartz at least one week prior to the exam**. Besides email, you can leave a message at the mathematics departmental office: 974-2461.

Special Accommodations: If you need course adaptations or accommodations because of a documented disability or if you have emergency information to share, please contact the Office of Disability Services at 209 Dunford Hall at 974-6087. This will ensure that you are properly registered for services.

Attendance: We will cover important material every class, so you should plan to attend all lectures. Although attendance does not count towards your final grade, be aware that most people that miss class repeatedly end up doing very poorly or failing the course.

Communication: Because of the size of this class communication between you and the course faculty should be in written form, preferably by email. Any emails sent to one of us should clearly have the course name –Math 241– in the subject, and your "official" name in the body. We will respond to all emails within 24 hours during the week, and within 48 hours on the weekend; we expect you to do the same.

Inclement Weather: Classes and exams will be held so long as the university is officially open; see www.utk.edu/status/ for an updated campus status.

Help Resources: Besides office hours of your recitation instructors and the course professor, the Math Tutorial Center provides help for students in Math 241 "to the best of their ability." The MTC is located in Ayres Hall G012 (basement, east end). Hours of operation are posted at www.math.utk.edu/MTC/.

Classroom Etiquette: To maintain an appropriate learning environment in our large lecture hall please be considerate to the instructor and those around you. Come to class on time and stay the entire period, or ask to be excused if you need to leave early or arrive late. Laptops and music/video players must be stored during class as well. Do not talk to classmates at inappropriate times. Refrain from reading newspapers or working on other coursework during class.

Please turn off/silent all cell phones, and put them away.

Academic Integrity:
We trust you will be committed to maintaining an atmosphere of intellectual integrity and academic honesty throughout this class. All students are expected to abide by the University Honor Statement:

"An essential feature of the University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

Lecture	Date	Section & Material	Practice Homework
1	1/7	12.1-12.2 Vector basics	12.1: 5,9,11,15,21,39,45 12.2: 11,13,19,25,27,33,53
2	1/9	12.2-12.3 Dot product	1,13,21,29,31,66,71,75
3	1/12	12.4 Cross Product	1,5,11,15,19,22,39,41
4	1/14	12.5 Equation of a plane	3,14,18,34,50,57
5	1/16	12.6 Quadric Surfaces	1-12,14,17,25,26,27
		Monday 1/19: No class – MLK holiday	
6	1/21	12.7 Cylindrical and spherical coordinates	2,7,13,14,22,23,38,47,48,55,56,61
7	1/23	13.1 Vector-valued functions	4,7,15,21
8	1/26	13.2 Calculus of vector-valued functions	4,10,27,28,31,45,50
9	1/28	13.3 Arc length and speed	3,11,14,18
10	1/30	13.5 Motion in 3-space	3,6,32
11	2/2	14.1 Functions of two or more variables	7,19, 20, 23, 29, 30
12	2/4	14.2 Limits and continuity in several variables	7,15, 22, 29
13	2/6	14.3 Partial derivatives	3,19,22,33,49,54,55,67
14	**Mon 2/9**	**Midterm Exam # 1**	**Sections: 12.1-14.3**
15	2/11	14.4 Differentiability and tangent planes	1,7,15,21,25,32

16	2/13	14.5 The gradient and directional derivatives	7,13,27,31,33,38,39,44
17	2/16	14.6 The chain rule	1,5,7,13,24,27,37,39
18	2/18	14.7 Optimization in several variables	1,3,10,19,21,28,31,31
19	2/20	14.7 Continued	1,3,10,19,21,28,31,31 (same)
20	2/23	14.8 Lagrange multipliers	2,7,11,13,15
21	2/25	14.8 Continued	2,7,11,13,15 (same)
22	2/27	15.1 Integration in two variables	12,17,27,29,41,43,45
23	3/2	15.2 General double integrals	3,5,11,21,27,32,33,41,43,49
24	3/4	15.3 Triple integrals	3,5,9,15,19,21,35
25	3/6	15.3 Continued	3,5,9,15,19,21,35 (same)
26	**Mon 3/9**	**Midterm Exam # 2**	**Sections: 14.4-15.3**
27	3/11	15.4 Integration in other coordinates	1,5,13,17,22,23,27,33,41,47,49
28	3/13	15.4 Continued	1,5,13,17,22,23,27,33,41,47,49
		Monday 3/16 - Friday 3/20: No classes – spring break	
29	3/23	15.5 Applications of multiple integrals	21,28
30	3/25	15.5 Continued	21,28 (same)
31	3/27	15.6 Change of variables	1,5,14,15,21,29,33,37
32	3/30	16.1 Vector fields	1,3,10,15,25,31
33	4/1	16.2 Line integrals	3,15,21,23,35,37,41,43
		Friday 4/3: No class – spring recess	
34	4/6	16.2 Line integrals continued	3,15,21,23,35,37,41,43 (same)
35	4/8	16.3 Conservative vector fields	1,5,9,11,15,21,22
36	4/10	16.4 Surfaces and surface integrals	1,5,8,11,13,17,23
37	4/13	16.5 Surface integrals of vector fields	1,6,9,12,15,17,23
38	**W. 4/15**	**Midterm Exam # 3**	**Sections: 15.4-16.5**
39	4/17	17.1 Green's theorem	1,3,6,9,13,23,25
40	4/20	17.2 Stokes theorem	1,5,9,11,21,23
41	4/22	17.3 Divergence theorem	1,5,7,9,13,16,17
42	4/24	**Review for final**	
	W. 4/29	**Final Exam** **12:30-2:30pm in EPS-302**	**All Sections: 12.1-17.3**