Information
Math 233

Professor
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`http://www.math.csi.cuny.edu/~mlucia/`

Time and Place
Monday: 6:30–8:10pm, 1S-112
Wednesday: 6:30–8:10pm, 1S-218

Office hours:
Monday: 3:35–4:25 pm and 8:10–9:00pm
Wednesday: 3:35–4:25 pm.

Textbook
CALCULUS-EARLY TRASNSCENDENTALS, by *Rogawski*
W.H. Freeman & Co. (2008)
ISBN-13: 978-1-4292-1073-7
ISBN-10: 1 -4292-1073-7

Course Outline
This course aims to study functions in two and three variables. The notion of continuity, differentiability, integral of several variable functions will be covered by this class.

Course Grade
The final course grade is determined as follows:

Homework	10%
MatLab Project	10%
Midterms	20% + 20%
Exams	Final 40%

First test: October 5th
Second Test: November 23rd
Homework: must be submitted using "Webwork" that can be found on the mathematics Website of CSI. Go to `http://www.math.csi.cuny.edu/` and follow the links.

MATLAB
MatLab Projects can be downloaded from: www.lulu.com/csimath

Deadline:
MATLAB Project 1 and 2: October 5th
MATLAB Project 3 and 4: November 23rd

Integrity policy
Please refer to
`http://www.cuny.edu/about/info/policies/academic-integrity.pdf`

Cell phone
Let us stay focused on the class !
Thus, cell phone should be switched off.

Lesson Plans
Below, each lesson corresponds to a one-hour class

Lesson	Sections	Topics	Homework
1	—-	Introduction	—
2	12.1, 12.2	Review: Vectors	Webwork 12.1 and 12.2
3	12.3	Dot Product	Webwork 12.3
4	12.4	Cross Product	Webwork 12.4
5	12.5	Planes in three-space	Webwork 12.5
6	12.6	Quadratic surface	Webwork 12.6, MATLAB 1
7	13.1	Vector-valued functions	Webwork 13.1
8	13.2	Calculus of vector valued functions	Webwork 13.2
9	13.3	Arc-length and speed	Webwork 13.3
10	13.4	Curvature	Webwork 13.4
11	13.5	Motion in three space	Webwork 13.5, MATLAB 2
12, 13	14.1	Functions of several variables	Webwork 14.1
14	14.2	Limits and continuity	Webwork 14.2
15	14.3	Partial derivatives	Webwork 14.3
16	None	Problems–review	
17	None	**Exam 1** (October 5th)	
18	None	**Exam 1** (October 5th)	
19	14.4	Tangent planes	Webwork 14.4
20	14.5	Gradient, Directional derivatives	Webwork 14.5
21	14.6	Chain rule	Webwork 14.6
22	14.6	Chain rule	MATLAB 3
23	14.7	Optimization	Webwork 14.7
24	14.7	Optimization	
25	14.8	Lagrange multipliers	Webwork 14.8
26	14.8	Lagrange multipliers	
27	15.1	Integration in several variables	Webwork 15.1
28	15.1	Integration in several variables	
29	15.2	Double integrals	Webwork 15.2
30	15.2	Double integrals	MATLAB 4
31	15.3	Triple integrals	Webwork 15.3
32	15.3	Triple integrals	
33	15.4	Integration in other coordinates	Webwork 15.4
34	15.4	Integration in other coordinates	
35	15.5	Change of variables	Webwork 15.5
36	15.5	Change of variables	
37	16.1	Vector fields	Webwork 16.1
38	16.1	Vector fields	
39	16.2	Line integrals	Webwork 16.2
40	16.2	Line integral	
41	16.3	Conservative vector fields	Webwork 16.3
42	none	Problems-Review	
43	none	**Exam 2** (November 23rd)	
44	none	**Exam 2** (November 23rd)	
45	16.4	Surface integral	Webwork 16.4
46	16.4	Surface integral	
47	17.1	Green's Theorem	Webwork 17.1
48	17.1	Green's Theorem	
49	17.2	Stokes' Theorem	Webwork 17.2
50	17.2	Stokes' Theorem	
51	17.3	Divergence Theorem	Webwork 17.3
52	17.3	Divergence Theorem	
53, 54	none	Review	