## Information – Math 232

Professor Marcello Lucia

Office 1S-226, marcello.lucia@csi.cuny.edu http://www.math.csi.cuny.edu/~mlucia/

Time and Place Monday, Wednesday: 6:30–8:10pm, 2S-219

Office hours Monday: 3:40–4:30pm,

Wednesday: 3:40-4:30pm, 8:10-9:00pm.

Textbook Calculus-Early Transcendentals, by Rogawski

W.H. Freeman & Co. (2015)

ISBN-13: 978-1-4641-1488-5, ISBN-10: 1-4641-1488-9

Course Outline This course aims to expand the notions introduced in Calc 1. It provides further appli-

cations of the definite integral, like for instance computing the volume of some threedimensional solids. Several new technics to integrate functions will be discussed. The course will also cover the notion of sequences, will make sense of "infinite sum" and

introduce analytical tools that are relevant in science.

Course Grade The final course grade is determined as follows:

**Homework** You must do the HW related to the sections that have been covered during the week.

There is a deadline every Sunday.

The HW 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.

Tests September 29th, October 27th, December 1st

Final: Expected to be December 17th (but refer to the official CSI calendar)

The material for the tests is cumulative

Integrity Like any university and any research institute, CUNY has an academic integrity code.

Students are required to be honest and ethical for any academic assignments.

Cell phone Let us stay focused on the class!

Cell phone must be switched OFF.

Lesson Plans Below, each lesson corresponds to a 50minutes class

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Lesson	Sections	Topics	Homework
1	5.2, 5.3	Definite, indefinite integral	Webwork 5.2, 5.3
2	5.4	Fundamental Theorem of Calculus	Webwork 5.4
3	5.7	Integration by substitution	Webwork 5.7
4	5.8	Further integral formula	Webwork 5.8
5	6.1	Area between two curves	Webwork 6.1
6	6.2	Volume, Average value	Webwork 6.2
7, 8	6.3	Volume of revolution	Webwork 6.3
9, 10	6.4	Cylindrical shells	Webwork 6.4
11	7.1	Integration by parts	Webwork 7.1
12	7.2	Trigonometric integrals	Webwork 7.2
13, 14		Exam 1 (September 29th)	
15, 16	7.2	Trigonometric integrals	Webwork 7.2
17, 18	7.3	Trigonometric substitution	Webwork 7.3
19, 20	7.5, 7.6	Partial fractions, Strategies for integration	Webwork 7.5, 7.6
21, 22	7.7	Improper integrals	Webwork 7.7
23, 24	10.1	Sequences	Webwork 10.1
25, 26	10.2	Series	Webwork 10.2
27, 28		Exam 2 (October 27th)	
29, 30	10.3	Convergence of positive series	Webwork 10.3
31, 32	10.4	Absolute & conditional convergence	Webwork 10.4
33, 34	10.4	Absolute & conditional convergence	Webwork 10.4
35, 36	10.5	Ratio & Root tests	Webwork 10.5
37, 38	10.6	Power series	Webwork 10.6
39, 40	10.7	Taylor polynomials	Webwork 10.7
41, 42	10.8	Taylor series	Webwork 10.8
43, 44	8.2	Arc length & surface area	Webwork 8.2
45, 46	11.1	Parametric equations	Webwork 11.1
47, 48		Exam 3 (December 1st)	
49, 50	11.2	Arc length & speed	Webwork 11.2
51, 52	11.3	Polar coordinates	Webwork 11.3
53, 54	11.4	Area in Polar coordinates	Webwork 11.4
55, 56		Review	