

# Information

## Math 232

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<b>Time and Place</b>	Monday: 6:30–8:10pm, 1S-217 Wednesday: 6:30–8:10pm, 1S-217  Office hours: Monday: 5:30–6:20 pm and 8:10–9:00pm Wednesday: 5:30–6:20 pm.	
<b>Textbook</b>	CALCULUS-EARLY TRANSCENDENTALS, by <i>Rogawski</i> W.H. Freeman & Co. (2012) ISBN-10: 1-4292-0838-4 ISBN-13: 978-1-4292-0838-3	
<b>Course Outline</b>	This course aims to develop technics to integrate function, with applications to compute area, volume and center of mass. Furthermore we will learn several technics to approximate functions like Taylor polynomials. Introduction to calculus in three dimension will be the last part of this course.	
<b>Course Grade</b>	The final course grade is determined as follows:	
	<b>MatLab Project &amp; Homework</b>	10%
	<b>Quizz</b>	10%
	<b>First test</b>	20%
	<b>Second test</b>	20%
	<b>Final</b>	40%
	<i>First test:</i> February 27th <i>Second Test:</i> April 15th <i>Final:</i> May 20th (to be confirmed) <i>Homework:</i> must be submitted using “Webwork” that can be found on the mathematics Website of CSI. Go to <a href="http://www.math.csi.cuny.edu/">http://www.math.csi.cuny.edu/</a> and follow the links.	
<b>MATLAB</b>	MatLab Projects can be downloaded from: <a href="http://www.lulu.com/csimath">www.lulu.com/csimath</a>  Deadline: MATLAB Project 1 and 2: March 18th MATLAB Project 3 and 4: May 6th	
<b>Integrity policy</b>	Please refer to <a href="http://www.cuny.edu/about/info/policies/academic-integrity.pdf">http://www.cuny.edu/about/info/policies/academic-integrity.pdf</a>	
<b>Cell phone</b>	Let us stay focused on the class ! Thus, cell phone should be switched off.	
<b>Lesson Plans</b>	Below, each lesson corresponds to a one-hour class	

Lesson	Sections	Topics	Homework
1	5.3	Fundamental Theorem of calculus	Webwork 5.3
2	5.4	Fundamental Theorem of calculus	Webwork 5.4
3	5.6	Integration by substitution	Webwork 5.6
4	5.7	Integration of transcendental functions	Webwork 5.7
5	6.1	Area between two curves	Webwork 6.1
6	6.2	Volume, Average value	Webwork 6.2
7	6.3	Volume of revolution	Webwork 6.3
8	6.4	Cylindrical Shell	Webwork 6.4
9	7.1	Integration by parts	Webwork 7.1
10	7.2	Trigonometric integrals	Webwork 7.2
11	7.3	Trigonometric substitution	Webwork 7.3
12	7.5	Partial fractions	Webwork 7.5
13	7.5	Partial fractions	Webwork 7.5
14	7.6	Improper Integrals	Webwork 7.6
15, 16	7.6	Improper integrals	Webwork 7.6
17, 18		<b>Exam 1</b> (February 27th)	
19, 20	8.3	Center of mass	Webwork 8.3
21, 22	8.4	Taylor polynomials	Webwork 8.4
23, 24	10.1	Sequences	Webwork 10.1
25, 26	10.2	Series	Webwork 10.2
27, 28	10.3	Convergence of positive series	Webwork 10.3
29, 30	10.4	Absolute convergence	Webwork 10.4
31, 32	10.5	Ratio & Root tests	Webwork 10.5
33, 34	10.6	Power series	Webwork 10.6
35, 36	10.7	Taylor series	Webwork 10.7
37, 38		<b>Exam 2</b> (April 15th)	
39, 40	8.1	Arc length & surface area	Webwork 8.1
41	11.1	Parametric equations	Webwork 11.1
42	11.2	Arc length & speed	Webwork 11.2
43	11.3	Polar coordinates	Webwork 11.3
44	11.4	Area & arc length in polar coordinates	Webwork 11.4
45, 46	12.1	Vectors in the plane	Webwork 12.1
47, 48	12.2	Vectors in three dimension	Webwork 12.2
49, 50	12.3	Dot product	Webwork 12.3
51, 52	12.4	Cross product	Webwork 12.4
53, 54	12.5	Plane in three dimensions	Webwork 12.5
55, 56		Review	