

# MATH 210: CALCULUS I

Fall 2011

**Instructor:** Brian Wynne

**Office:** 2nd floor, Hall College Center

**Phone:** 644-4298

**email:** bwynne@simons-rock.edu

**Text:** *Calculus*, Second edition, by Gilbert Strang (published by Wellesley-Cambridge Press)

**Office Hours:** MWF 1 - 3 and by appointment

This is a course in differential and integral calculus. Topics include limits, the derivative, the definite integral, the Fundamental Theorem of Calculus, and techniques of differentiation and integration. We will cover chapters 1-6 of the text.

The focus of this course is on the fundamental concepts and ideas of differential and integral calculus. Emphasis is placed on the problems which motivate the development of the calculus and on the careful and logical development of the concepts and methods needed to solve these problems.

Over the course of the semester there will be weekly homework assignments (see following page), three writing assignments (manuscripts), five in-class exams, and a final exam. In addition to doing homework regularly, the student is expected to read the text critically and to write about the material.

<b>Grading</b>		<b>Exam Dates</b>	<b>Manuscript Due Dates</b>
Manuscripts	20%	Sept 14	Sept 19
Hour Tests	60%	Oct 3	Oct 31
Final Exam	20%	Oct 26	Dec 5
		Nov 16	
		Dec 9	

Academic honesty is valued at Simon's Rock. All students are expected to know and uphold the college's policies on academic dishonesty as described in the Catalogue.

This syllabus is subject to change.

A student with special needs should feel welcome to discuss these with the instructor.

Text: Gilbert Strang, *Calculus*, Second Edition

WEEK	READ	DO
1. Aug 29-Sept 2	§1.1-1.6	§1.1 #1,3,8,18,29,32,33,37; §1.2 #7,8,21,24; §1.3 #1,2,8,9,12,15,17,20,22; §1.4 #2,3,9,13,18,23,26,27; §1.5 #3,11,12,17,18,24,25,26.
2. Sept 5-9	§2.1-2.5	§2.1 #2,4,6,7,10,13,15,16,17,36; §2.2 #2,4,9,10,13,14,19,30,39; §2.3 #2,4,9,13,16,17,19,20,28,29,35,38; §2.4 #3,10,11,16,18,19,26; §2.5 #2,3,7,10,13,14,19,27,34,39.
3. Sept 12-16	§2.6-3.1	§2.6 #1,2,7,9,12,14,15,18,25,34,35; §2.7 #1,2,5,8,21,22,23,24,31,35; §3.1 #2,3,5,9,10,17,20.
4. Sept 19-23	§3.2-3.4	§3.2 #2,4,5,9,10,15,16,21,25,38,39,43,44,51,54,60,61,66,67; §3.3 #2,5,6,9,14,16,17,18,45; §3.4 #3,6,10,15,21,30,51.
5. Sept 26-30	§3.5-3.8	§3.5 #4,7,10,19,20,23,27,35; §3.6 #1,4,9,13,14,20; §3.7 #1,6,9,12,13; §3.8 #1,2,4,7,14,17,19,22,30.
6. Oct 3-7	§4.1	§4.1 #1,4,5,8,9,14,18,21,28,32,39,40,47,48,53.
	<b>Break</b>	
7. Oct 17-21	§4.2-4.4	§4.2 #4,6,9,11,12,20,21,23,24,29; §4.3 #5,6,7,13,17,19,22,23,36,40,45,48; §4.4 #4,7,9,15,18,22,25,33,35,42,50.
8. Oct 24-28	§5.1-5.2	§5.1 #7,15,16,21,22; §5.2 #1,4,7,12,19,25,26,33.
9. Oct 31-Nov 4	§5.3-5.5	§5.3 #1,2,5,8,12,13,18,23,30; §5.4 #2,5,7,10,13,18,25,28,33; §5.5 #1,11,12,16,21,33.
10. Nov 7-11	§5.6-5.8	§5.6 #3,4,10,17,18; §5.7 #1,2,9,15,21,26,30; §5.8 #3,4,5,6.
11. Nov 14-18	§6.1	§6.1 #5,6,10,15,16,21,22,27.
	<b>Break</b>	
12. Nov 28-Dec 2	§6.2-6.4	§6.2 #1,4,7,9,12,16,23,28,32,37,42,46; §6.3 #3,4,11,16,23,27,30,35; §6.4 #3,4,7,8,14,17,21,24,26,33,39,48,54,55,60,65.
13. Dec 5-9	§6.5-6.7	§6.5 #3,4,6,11,19,25,28; §6.6 #1,6,15,18,23,43; §6.7 #11,12,19,28,34,51,54.
14. Dec 12-14	Review	