MATH 111: CALCULUS I

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Office Hours: Tuesdays 10.00am to 12.00pm, Wednesdays and Fridays 9.00am to 10.00am, and by appointment.

Book: *Calculus, Volume 1, 7th edition* by James Stewart.

Coverage: Most of chapters 1-4, parts of chapters 5 and 6. Chapter 6 is not in the physical book, but is in the e-book to which you will have access through WebAssign.

WebAssign: You should have received a WebAssign access card with your book. WebAssign is a *vital* part of this course and houses all homework assignments. You should log in **today**. To do so:

1. Go to `www.webassign.net` (note it is ".net" not ".com")
2. Click on **I have a class key**, located on the upper right.
3. Enter your class key:

   For section B (10.20am class), enter: colgate 0097 2561

   For section C (12.20pm class), enter: colgate 2034 6996

4. Verify that the course is Math 111 with Professor Robertson
5. If you do not have a WebAssign account you will need to create one; otherwise, login to your WebAssign account.
6. Finally, it should ask you for your access code, which came bundled with the book purchase.

Assignments: Homework is graded and is due roughly 2–3 times per week. The schedule of due dates is on WebAssign as well as this syllabus. If you lose this syllabus, you can download it at `www.aaronrobertson.org` (so you might want to write this address down in your notebook). There are 25 assignments due so you should find yourself *continually* doing homework for this class. Don't put it off as it will be quite difficult to catch up.

Rules of the class: This class is taught as if you have **never** seen calculus. If you have seen calculus, please do not ask if you can use some technique that you learned in a previous class but not in this one. The answer will be no. (For example (if you know calculus): Don't ask if you can use L'Hôpital's rule for certain limits. Don't ask if you can use derivative rules instead of limits if we haven't developed any rules yet.)

Testing: There will be 4 midterms and a cumulative final. The midterms are Tuesdays, 11:30am to 1:00pm on the following dates: February 3, March 3, April 7, and April 28.

The **final** is: Thursday, May 7, at 9.00am for section B (10.20am class); Tuesday, May 5, at 9.00am for section C (12.20pm class).

Late work: Late homework **will not be accepted**. Period. Homework is late once I leave the classroom on the day homework is collected. Make-up midterms will not be given without a note from your doctor or dean. If you know you will miss a test, you must notify me *before* the test so that we can make arrangements for you to take the test *before* the scheduled date.

Evaluation: The four midterms are each worth 15%, WebAssign homework is worth a total of 15%, the five pop quizzes are worth a total of 5%, and the final is worth 20%.

CLASS SCHEDULE

Date	Section(s)	Description	HW DUE?
Jan. 19 (Mon)	–	Short class; syllabus	NO
Jan. 21 (Wed)	– §1.1 §6.2	Review of algebra rules Domain, range e^x and logarithms	YES
Jan. 22 (Thu)	–	More on functions	NO
Jan. 23 (Fri)	§1.3	Compositions	YES
Jan. 26 (Mon)	§1.5	Limits	YES
Jan. 28 (Wed)	§1.5, §1.6	Limits, asymptotes	NO
Jan. 29 (Thu)	§1.8	Continuity	YES
Jan. 30 (Fri)	–	Homework questions	YES
Feb. 2 (Mon)	–	Review for Midterm	YES
Feb. 3 (Tue)	–	**MIDTERM 1**	NO
Feb. 4 (Wed)	§2.1	Definition of derivative	NO
Feb. 5 (Thu)	§2.1	Derivatives, Velocity, Accelaration	NO
Feb. 6 (Fri)	§2.2	Graphs, continuity	NO
Feb. 9 (Mon)	§2.3	Derivative rules	YES
Feb. 11 (Wed)	§2.3	Derivative rules	NO
Feb. 12 (Thu)	§2.3	Derivative rules	NO
Feb. 13 (Fri)	§2.4, §6.4	Derivatives for $e^x, \log x$, trig functions	YES
Feb. 16 (Mon)	§2.5	Chain rules	YES
Feb. 18 (Wed)	§2.5	Chain rules	NO
Feb. 19 (Thu)	§2.7	Rates of change	YES
Feb. 20 (Fri)	–	Homework questions	YES
Feb. 23 (Mon)	§2.6	Implicit differentiation	NO
Feb. 25 (Wed)	§6.4	Logarithmic differentiation	NO
Feb. 26 (Thu)	–	Differentiation problems	YES
Feb. 27 (Fri)	–	Homework problems	YES
Mar. 2 (Mon)	–	Review for Midterm	NO
Mar. 3 (Tue)	–	**MIDTERM 2**	NO
Mar. 4 (Wed)	§2.9	Differentials, linear approximation	NO
Mar. 5 (Thu)	§2.8	Related rates	NO
Mar. 6 (Fri)	§2.8	Related rates	YES
Mar. 9 (Mon)	–	Applications worksheet	YES
Mar. 11 (Wed)	§3.1	Critical/max/min values	NO
Mar. 12 (Thu)	§3.1	Intro curve sketching	NO
Mar. 13 (Fri)	–	**NO CLASS**	YES
Mar. 23 (Mon)	§3.3	Curve sketching	NO
Mar. 25 (Wed)	§3.3, §3.4	More curve sketching	NO
Mar. 26 (Thu)	§3.4	Curve sketching	YES
Mar. 27 (Fri)	§3.5	Curve sketching	NO
Mar. 30 (Mon)	§3.5	Optimization	YES

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CLASS SCHEDULE CONTINUED

Date	Section(s)	Description	HW DUE?
Apr. 1 (Wed)	§3.7	Optimization	NO
Apr. 2 (Thu)	§6.5	Exponential growth/decay	YES
Apr. 3 (Fri)	–	Homework questions	YES
Apr. 6 (Mon)	–	Review for Midterm	NO
Apr. 7 (Tue)	–	**MIDTERM 3**	NO
Apr. 8 (Wed)	§4.2	Definition of integral	NO
Apr. 9 (Thu)	§4.2	Reimann sums	NO
Apr. 10 (Fri)	§4.2	More on integral	NO
Apr. 13 (Mon)	§3.9	Antiderviative, 2nd Fundamental Theorem	YES
Apr. 15 (Wed)	§4.3	1st Fundamental Theorem	YES
Apr. 16 (Thu)	§4.4	Indefinite integral	YES
Apr. 17 (Fri)	–	Integration worksheet	YES
Apr. 20 (Mon)	§4.5	u-substitution	NO
Apr. 22 (Wed)	§4.5, §5.1	u-sub, area between curves	NO
Apr. 23 (Thu)	§5.1	Area between curves	YES
Apr. 24 (Fri)	–	Integration worksheet	YES
Apr. 27 (Mon)	–	Review for midterm	NO
Apr. 28 (Tue)	–	**MIDTERM 4**	NO
Apr. 29 (Wed)	–	**NO CLASS**	NO
Apr. 29 (Thu)	–	**NO CLASS**	NO
May 1 (Fri)	–	Final exam info	NO