

## MATH 111-01 Calculus I, Spring 2019

**Instructor:** Ryan Vinroot      **Office/Hours:** Jones 100D/Office hours TBA

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**General Info:** I am **not using Blackboard** for the course. The course homepage is:  
<http://www.math.wm.edu/~vinroot/111S19.html>

**Text(s):** 1) *Single Variable Essential Calculus, Early Transcendentals* by James Stewart (8<sup>th</sup> Ed.). The W&M Bookstore sells this in loose leaf form which includes the e-Book and a WebAssign access code. The e-Book has very useful videos, and we will use WebAssign later in the semester. The course will cover Sections 2.1 – 5.4 (omit 3.11, 4.6, 4.8).

2) Online Labs, which will be available at:

<http://www.wm.edu/as/mathematics/undergrad/wheretostart/math111/index.php>

**Calculators:** Calculators will not be allowed on Quizzes, Tests, or the Final Exam. A calculator could be useful for some Lab or HW problems. You can get away without having a calculator and just use online tools, so a calculator is not required.

**Tests and Quizzes:** There will be three mid-semester tests: the tentative dates are February 21, March 21, and April 18. Make-up tests are only given in extreme circumstances such as documented serious illness or personal circumstance. I must review such cases **prior** to the start of the test. During weeks when there is not a test there will be a quiz, given during lab time. These are based on homework problems and examples from class. There are no make-up quizzes. Your lowest quiz score will be dropped at the end of the semester.

**Final Exam:** The final exam is a “block” exam taken by all sections of Math 111 from 9am-12 noon on Wednesday, May 8. Your final exam score may replace your lowest attempted test score if it is higher.

**Homework:** There is a list of recommended HW problems from every section that we will cover. Some of these problems will also be on WebAssign. The only graded HW problems will be the Lab problems, but you should work on all of the HW problems in order to succeed in the class.

**Labs:** The 4<sup>th</sup> hour of this course is a lab, and takes place in Morton 37. You are required to be present at the meeting of your lab section. Each lab assignment must be completed in its entirety by the due time as indicated by your Teaching Assistant (TA), Becca Rousseau, who will collect, grade, and return your graded labs. The lab scores count toward your overall grade for the course. Quizzes and Tests are also given during Lab time, where Quizzes will be given each Lab when there is no Test.

**Attendance:** Regular attendance is critical for your success in this course. If you must miss class, you are expected to get notes and missed material from a fellow student.

**Grading:** Your final grade is calculated as follows:

Mid-semester Tests	15% each
Quizzes	15%
Labs	15%
Final Exam:	25%

The letter grade is assigned using the scale: A 93-100, A- 90-92, B+ 87-89, B 83-86, B- 80-82, C+ 77-79, C 73-76, C- 70-72, D+ 67-69, D 63-66, D- 60-62, F < 60

**Honor Code:** Students will uphold William and Mary’s stated honor code as it is written, any infractions will be referred to the Honor Council.

## Tentative Syllabus for Math 111, Section 1, Spring 2019:

Week	Class	Section covered	Thursday Labs
1	W Jan 16	Intro, 2.1 Tangent & Velocity	No lab, Work on Precal review
	F Jan 18	2.2 Limit of a function	
2	M Jan 21	MLK Holiday	Start Lab 1, Quiz 0 (Practice Only)
	W Jan 23	2.3 Limit Laws	
3	F Jan 25	2.3 Limit Laws (cont'd)	Turn in Lab 1, Start Lab 2, Quiz 1
	M Jan 28	2.4 Precise Definition of a Limit	
	W Jan 30	2.5 Continuity	
4	F Feb 1	2.6 Limits Involving Infinity	Turn in Lab 2, Start Lab 3, Quiz 2
	M Feb 4	2.7 Intro to Derivatives	
	W Feb 6	2.8 Derivatives of a function	
5	F Feb 8	3.1 Derivatives of Polys/Exp	Turn in Lab 3, Start Lab 4, Quiz 3
	M Feb 11	3.2 Product and Quotient rules	
	W Feb 13	3.3 Derivatives of Trig Funcs.	
6	F Feb 15	3.4 Chain Rule	<b>Thurs, Feb 21, 8 AM, Test 1 (2.1-3.3)</b>
	M Feb 18	3.4 Chain Rule (cont'd)	
	W Feb 20	Review for Test 1	
7	F Feb 22	3.5 Implicit Differentiation	Turn in Lab 4, Start Lab 5, Quiz 4
	M Feb 25	3.6 Derivatives of Logs	
	W Feb 27	3.7 Natural and Social Sci. Apps	
8	F Mar 1	3.8 Exponential Growth/Decay	Spring Break
	M Mar 4	Spring Break	
	W Mar 6	Spring Break	
9	F Mar 8	Spring Break	Turn in Lab 5, Start Lab 6, Quiz 5
	M Mar 11	3.9 Related Rates	
	W Mar 13	3.10 Linear Approximation	
10	F Mar 15	4.1 Max/Min Values	<b>Thurs, Mar 21, 8 AM, Test 2 (3.4-3.10)</b>
	M Mar 18	4.1 Max/Min Values (cont'd)	
	W Mar 20	Review for Test 2 (Lab 6 due)	
11	F Mar 22	4.2 Mean-Value Theorem	Start Lab 8, Quiz 6
	M Mar 25	4.3 Derivatives and Graphing	
	W Mar 27	4.4 Indet. Forms/L'Hospital's Rule	
12	F Mar 29	4.4 L'Hospital's Rule (cont'd)	Turn in Lab 8, Start Lab 9, Quiz 7
	M Apr 1	4.5 Summary of Curve Sketching	
	W Apr 3	4.7 Optimization	
13	F Apr 5	4.7 Optimization (cont'd)	Turn in Lab 9, Start Lab 10, Quiz 8
	M Apr 8	4.9 Antiderivatives	
	W Apr 10	5.1 Areas and Distance	
14	F Apr 12	5.1 Areas and Distance (cont'd)	<b>Thurs, Apr 18, 8 AM, Test 3 (4.1-4.9)</b>
	M Apr 15	5.2 Definite Integrals	
	W Apr 17	Review for Test 3 (Lab 10 due)	
15	F Apr 19	5.2 Definite Integrals (cont'd)	Bring Lab 11, Turn in History Lab
	M Apr 22	5.3 Fundamental Thm of Calc	
	W Apr 24	5.3 Fund Thm (cont'd)	
EXAM	F Apr 26	5.4 Indef Integrals/Net Change	Cumulative, block final (Location TBA)
	W May 8	Final Exam 9:00 AM-12 noon	