

**MATH 111-04 Calculus I, Fall 2018**  
**Instructor: Ryan Vinroot**  
**Phone: 221-2017**

**Lecture Room: Small Physics Lab 233**  
**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/111F18.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. WebAssign will not be required for this class, but will be set up with practice problems for those who want to use it. The course will cover Sections 2.1 – 5.4 (omit 3.11, 4.6, 4.8) of the textbook.  
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 given during Lab: the tentative dates are September 27<sup>th</sup>, November 1<sup>st</sup>, and November 29<sup>th</sup>. 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. 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 9 am-12 noon on Friday, December 14<sup>th</sup>. Your final exam score will 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 to succeed in this course.

**Labs:** The 4<sup>th</sup> hour of this course is a lab, and takes place in Small Physics Lab 233 (same room as lecture). You are required to be present at the meeting of your lab section. Each lab assignment should be completed in its entirety by the next lab session, and turned in to your TA, Becca Rousseau. The lab scores count toward your overall grade for the course. Quizzes are also given during Lab time, on each week when there is not a 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 4, Fall 2018:

Week	Class	Section covered	Thursday Labs
1	W Aug 29	Intro, 2.1 Tangent & Velocity	No lab, work on Precal review
	F Aug 31	2.2 Limit of a function	
2	M Sept 3	2.3 Limit Laws	Start Lab 1, Quiz 0 (Practice only)
	W Sept 5	2.4 Precise Definition of Limit	
	F Sept 7	2.4 Precise Defn (cont'd)	
3	M Sept 10	2.5 Continuity	Turn in Lab 1, Start Lab 2, Quiz 1
	W Sept 12	2.6 Limits involving infinity	
	F Sept 14	2.7 Intro to Derivatives	
4	M Sept 17	2.8 Derivative as a function	Turn in Lab 2, Start Lab 3, Quiz 2
	W Sept 19	3.1 Derivatives of Polys/Exp	
	F Sept 21	3.2 Product and Quotient Rules	
5	M Sept 24	3.3 Derivatives of Trig funcs.	<b>Thurs, Sept 27, 8 AM, Test 1 (2.1-3.3)</b>
	W Sept 26	Review for Test 1 (Lab 3 due)	
	F Sept 28	3.4 Chain Rule	
6	M Oct 1	3.4 Chain Rule (cont'd)	Start Lab 4, Quiz 3
	W Oct 3	3.5 Implicit Differentiation	
	F Oct 5	3.6 Derivatives of Logs	
7	M Oct 8	3.7 Natural & Social Sci. Apps	Turn in Lab 4, Start Lab 5, Quiz 4
	W Oct 10	3.8 Exponential Growth/Decay	
	F Oct 12	3.9 Related Rates	
8	M Oct 15	Fall Break	Turn in Lab 5, Start Lab 6, Quiz 5
	W Oct 17	3.10 Linear Approximation	
	F Oct 19	4.1 Max/Min Values	
9	M Oct 22	4.1 Max/Min Values (cont'd)	Turn in Lab 6, Start Lab 7, Quiz 6
	W Oct 24	4.2 Mean-Value Theorem	
	F Oct 26	4.3 Derivatives and Graphing	
10	M Oct 29	4.4 Indet. Forms/L'Hospital's Rule	<b>Thurs, Nov 1, 8 AM, Test 2 (3.4-4.3)</b>
	W Oct 31	Review for Test 2 (Lab 7 due)	
	F Nov 2	4.4 Indet. Forms (cont'd)	
11	M Nov 5	4.5 Summary of Curve Sketching	Start Lab 9, Quiz 7
	W Nov 7	4.7 Optimization	
	F Nov 9	4.7 Optimization (cont'd)	
12	M Nov 12	4.9 Antiderivatives	Turn in Lab 9, Start Lab 10, Quiz 8
	W Nov 14	5.1 Areas and Distances	
	F Nov 16	5.2 The Definite Integral	
13	M Nov 19	5.2 The Definite Integral (cont'd)	No lab (Thanksgiving Break)
	W Nov 21	Thanksgiving Break	
	F Nov 23	Thanksgiving Break	
14	M Nov 26	5.3 Fund Thm of Calculus	<b>Thurs, Nov 29, 8 AM Test 3 (4.4-5.2)</b>
	W Nov 28	Review for Test 3 (Lab 10 due)	
	F Nov 30	5.3 Fund Thm (cont'd)	
15	M Dec 3	5.4 Indefinite Integrals	Start Lab 11, Turn in History Lab
	W Dec 5	5.4 Net Change Theorem	
	F Dec 7	Review	
EXAM	F Dec 14	Final Exam 9:00 AM-12 noon	Cumulative, block final (Location TBA)