MATH 112-01 Calculus II , Spring 2017
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/112S17.html

Text(s): 1) *Single Variable Essential Calculus, Early Transcendentals* by James Stewart (8th 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, although it and WebAssign are optional.
The course will cover Section 5.5, and sections from Chapters 6, 7, 8, 9, and 11.
2) Online Labs, which will be available at:
http://www.wm.edu/as/mathematics/undergrad/wheretostart/math112/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, but purchase one if you like.

Tests and Quizzes: There will be three mid-semester tests: the tentative dates are Feb 14, Mar 21, and
Apr 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.
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 112 from 9am-12 noon
on Thurs, May 4th. Your final exam score may replace your lowest attempted test score if it is higher.

Homework: There will be a list of recommended HW problems from every section that we will cover
on the course homepage. There will be very similar problems available to do on WebAssign. While
WebAssign is completely optional, it may be very useful in further understanding the material. The
only graded problems will be the Lab problems, but if you are able to do all of the HW problems, then
you should progress well in the class.

Labs: The 4th hour of this course is a lab, and takes place in Morton Hall 201 on Tuesdays at 8:30 AM
(and 8:00 AM on test days). You are required to be present at the meeting of your lab section. Each
lab assignment must be completed in its entirety by the next lab session (or by Wed on the weeks of
Tests). At that time, it is collected and graded by your TA. 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 Please keep all cell
phones/hand held devices/laptops/tablets put away during lecture and lab.

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 112, Section 1, Spring 2017:

Week	Class	Section covered	Tuesday Labs
1	W Jan 18	Intro and Review	No lab, do Lab 0 independently
	F Jan 20	5.5 Substitution Rule	
2	M Jan 23	5.5 Substitution Rule (cont'd)	
	W Jan 25	6.1 Areas Between Curves	Turn in Lab 0, Bring Lab 1, Quiz 0
	F Jan 27	6.2 Volumes	
3	M Jan 30	6.4 Work	
	W Feb 1	6.4 (cont'd)/6.5 Avg Values	Turn in Lab 1, Bring Lab 2, Quiz 1
	F Feb 3	7.1 Integration by Parts	
4	M Feb 6	7.2 Trigonometric Integrals	
	W Feb 8	7.2 (cont'd)/7.3 Trig Sub	Turn in Lab 2, Bring Lab 3, Quiz 2
	F Feb 10	7.3 Trig Sub (cont'd)	
5	M Feb 13	Review (Turn in Lab 3)	
	W Feb 15	7.4 Partial Fractions	**Tues, Feb 14, 8 AM, Test 1 (5.5-7.3, not 6.3)**
	F Feb 17	7.4 Partial Fractions (cont'd)	
6	M Feb 20	7.5 Strategy for Integration	
	W Feb 22	7.7 Approximate Integration	Bring Lab 4, Quiz 3
	F Feb 24	7.8 Improper Integrals	
7	M Feb 27	7.8 (cont'd)/8.1 Arc Length	
	W Mar 1	8.3 Applications to Physics	Turn in Lab 4, Bring Lab 5, Quiz 4
	F Mar 3	8.3 Applications to Physics	
8	M Mar 6	Spring Break	
	W Mar 8	Spring Break	Spring Break
	F Mar 10	Spring Break	
9	M Mar 13	9.1 Modeling/9.2 Direction Fields	
	W Mar 15	9.2 (cont'd)/9.3 Separable Eqns	Turn in Lab 5, Bring Lab 6, Quiz 5
	F Mar 17	9.4 Models for Population Growth	
10	M Mar 20	Review (Turn in Lab 6)	
	W Mar 22	11.1 Sequences	**Tues, Mar 21, 8 AM, Test 2 (7.4-7.8, 8.1,**
	F Mar 24	11.2 Series	**8.3, 9.1-9.4)**
11	M Mar 27	11.2 (cont'd)	
	W Mar 29	11.3 Integral Test	Bring Lab 7, Quiz 6
	F Mar 31	11.3 (cont'd)	
12	M Apr 3	11.4 Comparison Test	
	W Apr 5	11.5 Alternating Series	Turn in Lab 7, Bring Lab 8, Quiz 7
	F Apr 7	11.6 Absolute Convergence	
13	M Apr 10	11.6 (cont'd) Ratio and Root Tests	
	W Apr 12	11.7 Strategy for Testing Series	Turn in Lab 8, Bring Lab 9, Quiz 8
	F Apr 14	11.8 Power Series	
14	M Apr 17	Review (Turn in Lab 9)	
	W Apr 19	11.9 Functions as Power Series	**Tues, Apr 18, 8 AM, Test 3 (11.1-11.8)**
	F Apr 21	11.9 (cont'd)	
15	M Apr 24	11.10 Taylor and Maclaurin Series	
	W Apr 26	11.10 (cont'd)	Bring Lab 10, Due on Fri Apr 28
	F Apr 28	Review	History of Calc Assignment Due Fri Apr 28
EXAM	Th May 4	Final Exam 9:00 AM-12 noon	Cumulative, block final (Location TBA)