Instructor:	Dr. Anthony Várilly-Alvarado	**Time:**	MWF 11:00-11:50AM	
Office:	412 Herman Brown	**Classroom:**	Herzstein Hall (HZ) 212	
Email:	varilly@rice.edu	**Office Hours:**	Tu 11AM-12PM, F 3-4PM	
Phone:	x4597			

Class Webpage: Look for `Math 101 002 F09` on Owlspace

Recitations: There are four Teaching Assistants for this course:

Time:	Tu 7-9PM	**Classroom:**	HZ 212 (sometimes BL 131)
Time:	Th 7-9PM	**Classroom:**	HZ 212 (sometimes BL 131)
TAs:	Derek Goto, Paul Munger,		
	Letao Zhang and Zhi Zhang		

Text: James Stewart: *Calculus Early Transcendentals 6E.*
We will cover chapters 1 through 6.

Homework: Homework will be due **each class day at the beginning of class** and will be returned as promptly as possible. It will not be pledged, so feel free to work together on homework (in fact, you are encouraged to do so). You must, however, write up your own solutions and they should reflect your own understanding. Assignments will be posted on our Owlspace website. Make sure to **staple** your homework.

> **Late homework assignments will not be accepted for ANY reason –**
> **instead, your lowest three scores will be dropped.**

Homework will be graded for correctness, clarity, and justification. For a problem to receive full credit, you must

- Briefly, state the goal of the problem,

- Explain each step as necessary,

- Present the entire solution in a clean and clear format that is easy to follow.

Imagine that a fellow student will be reading your homework to study for an exam. If your work is not detailed enough to be useful, it is unlikely to earn much credit when graded. Another student reading your assignment should be able to guess at the question your are trying to answer without referring to the textbook.

Exams: There will be two midterm tests during the semester. They will take place on **Thursday, October 1st at 8:00am** and on **Tuesday, November 10th at 8:00am**.

> **Final exam:** The date for the final exam is not available at this time. It is the policy of the Mathematics Department that no final may be given early to accomodate student travel plans. If you make travel plans that later turn out to conflict with the scheduled exam, then it is your responsibility to either reschedule your travel plans or take a zero in the final.

Books, notes, and calculators will **not** be allowed on exams. Make-up exams will be allowed only in the case of a documented medical emergency. If an exam conflicts with a holiday you observe, please let me know before the end of the first week of classes.

Grades: Your homework will count as 15% of your final grade. Your three lowest homework scores will be dropped. The first midterm will count for 20% of your grade and the second midterm will count for 25%.The final exam will count for 40% of your grade.

Expectations: I expect you to attend every class and to arrive on time. It is your responsibility to keep informed of any announcements, syllabus adjustments, or policy changes made during scheduled classes. Not all announcements will be posted on the website.

In my experience as a student, most people do not follow all the details of a lecture in real time. When you go to a Math lecture you should expect to witness the big picture of what's going on. You should pay attention to the lecturer's advice on what is important and what isn't. A lecturer spends a long time thinking on how to deliver a presentation of an immense amount of material; they do not expect you to follow every step, but they do expect you to go home and fill in the gaps in your understanding. Not attending lecture really hurts your chances at a deep understanding of the material.

Success: The most successful students tend to:

- Attend every class,

- Read the book and review their notes daily,

- Work on all the homework as it is assigned,

- Seek help as soon as they encounter trouble.

I encourage you to utilize your classmates, recitation sessions and office hours whenever you are having trouble understanding the course material. Get your questions answered as they arise – waiting until you have many questions (or until an exam is looming!) will make help in any form less effective.

Disability Support: Any student with a documented disability seeking academic adjustments or accommodations is requested to speak with me during the first two weeks of class. All such discussions will remain as confidential as possible. Students with disabilities will need to also contact Disability Support Services in the Allen Center

Tentative Schedule:

Mon, 08/24 Section 1.1-2: Basics on functions
Wed, 08/26 Section 1.3: Stretching, shifting and composing functions
Fri, 08/28 Section 1.5: Exponential functions
Mon, 08/31 Section 1.6: Inverse functions and Logarithms
Wed, 09/2 Section 2.1: Tangents and velocity problems
Fri, 09/4 Section 2.2: The limit of a function

Mon, 09/7 No class, Labor Day
Wed, 09/9 Section 2.3: Limit laws
Fri, 09/11 Section 2.4: Epsilons and deltas
Mon, 09/14 Section 2.5: Continuity
Wed, 09/16 Section 2.6: Limits at infinity; horizontal asymptotes
Fri, 09/18 Section 2.7: Derivatives
Mon, 09/21 Section 2.8: Derivatives as functions
Wed, 09/23 Section 3.1: Derivatives of polynomials and exponential functions
Fri, 09/25 Section 3.2: Product and Quotient rules
Mon, 09/28 Section 3.3: Derivatives of Trigonometric Functions
Wed, 09/30, Review
THU, 10/01, 8AM First Midterm Exam
Fri, 10/02 Section 3.4: The Chain Rule
Mon, 10/5 Section 3.5: Implicit differentiation
Wed, 10/7 Section 3.6: Derivatives of Logarithmic Functions
Fri, 10/09 Section 3.7: Rates of change
Mon, 10/12 No class, Midterm Recess
Wed, 10/14 Section 3.8: Exponential Growth and Decay
Fri, 10/16 Section 3.9: Related Rates
Mon, 10/19 Section 3.10-11: Linear approximations and differentials; Hyperbolic functions
Wed, 10/21 Section 4.1: Maximum and Minimum Values
Fri, 10/23 Section 4.2: The Mean Value Theorem
Mon, 10/26 Section 4.3: Derivatives and Graphs
Wed, 10/28 Section 4.4: L'Hôpital's Rule
Fri, 10/30 Section 4.5-6: Curve Sketching
Mon, 11/2 Section 4.7-8: Optimization; Newton's Method
Wed, 11/4 Section 4.9: Antiderivatives
Fri, 11//6 Section 5.1: Areas and Distances
Mon, 11/9 Review
TUE, 11/10 8AM Second Midterm Exam
Wed, 11/11 Section 5.2: Definite Integration
Fri, 11/13/ Section 5.3: The Fundamental Theorem of Calculus
Mon, 11/16 Section 5.4: Indefinite Integrals
Wed, 11/18 Section 5.5: The Substitution Rule
Fri, 11/20 Section 6.1: Areas between curves
Mon, 11/23 Section 6.2: Volumes
Wed, 11/25 Section 6.3: Cylindrical Shells
Fri,11/27 No class, Thanksgiving
Mon, 11/30 Section 6.4: Work
Wed, 12/2 Section 6.5: Average Value of a Function
Fri, 12/4 Review, last day of classes