# Calculus I <br> MATH 201 Section S, Fall 2014 <br> T, Th 5 - 6:15pm; F 5 - 5:50pm in room Harris 09 

Instructor: Jhevon Smith
Email: JhevonTeaches @ gmail.com
Office Hours: By appointment. Also see tutoring times below.
Website: http://math.sci.ccny.cuny.edu/people?name=Jhevon_Smith
Text: Stewart, Essential Calculus, $2^{\text {nd }}$ Edition.
Math Dept.: NAC 8/133 Math Dept. website: http://math.sci.ccny.cuny.edu
Math 201 website: http://math.sci.ccny.cuny.edu/courses?name=Math_20100
Websites: I gave you my website since I will be posting documents and instructions for the class there, such as: review problems, announcements, solutions to tests and quizzes, etc. I gave you the math 201 website because you will need to go to that website to access past finals, and other study materials, etc. I gave you the math. dept. website because, well, you should have it.

Calculator: Calculators are NOT permitted on any quiz or exam in this course. You may need calculators for certain problems in the homework, but I encourage you to try and do without a calculator as much as possible to create good habits. Calculators are not permitted in calculus 2 or 3 and many courses above that level either.

Grading: Grades will be assigned according to the following chart.

| Letter Grade | G.P.A. | Grade | Letter grade | G.P.A. | Grade |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{A}^{+}$ | 4.00 | $98-100$ | C | 2.00 | $74-76$ |
| A | 4.00 | $94-97$ | C- | $\mathbf{1 . 6 6}$ | $\mathbf{7 0 - 7 3}$ |
| $\mathrm{A}^{-}$ | 3.66 | $90-93$ | $\mathbf{D}$ | $\mathbf{1 . 0 0}$ | $\mathbf{6 0 - 6 9}$ |
| $\mathrm{~B}^{+}$ | 3.33 | $87-89$ | F | $\mathbf{0}$ | Below 60 |
| B | 3.00 | $84-86$ |  |  |  |
| $\mathrm{~B}-$ | 2.66 | $80-83$ |  |  |  |

You need a C to pass this course and move on to the next, MATH 202. Based on major, some may opt to take MATH 209; a minimum of C in this course is still required. However, for majors that would require a math sequence involving math 201 (science, engineering, math, etc), an A would be much more appropriate, so aim for that!

As department policy demands, the final exam is worth $40 \%$ of your grade in this course. The remaining $60 \%$ will come from your in-class grade. The breakdown is as follows:

Quizzes: $\mathbf{1 5 \%}$ (There will be a quiz at least once per week. Two quiz grades will be dropped.)
Written Homework: 5\% (I will drop the worst two.)
WebAssign Homework: 5\% (This is done and submitted online.)
Participation: 5\% (Based mostly on attendance.)
In-class tests: $\mathbf{3 0 \%}$ (I will give 4 exams and count the best 3.)
Final Exam: 40\% (This will be a cumulative exam given at the end of the course.)

Extra Credit: Not happening...
Make-up Exams/Quizzes: No way...
Don't miss any test or quiz! And work hard so that you don't end up in a position where you'd need extra credit!

Attendance: Attendance will be taken at the beginning of class. You are late if you arrive after your name is called. You are considered absent if you arrive 15 minutes late. If you are late twice, that is considered as one absence. For your $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ absence, I will take 1,2 , and 4 point(s), respectively, off your final grade. You will be assigned a WU (failing) grade if you accumulate 5 unexcused absences.

To be excused for an absence (or lateness) you must email me no later than one day after that particular absence (or lateness) with the reason. Of course, proof is required where applicable. For example, if your absence or lateness was due to a doctor's appointment, I expect to see a doctor's note. If you miss a class, it is your responsibility to catch up. You can see me during my office hour to discuss what was done in class, or catch up on your own. It's up to you. To reiterate, there is no make-up for a missed quiz/homework/exam. Seriously! I drop your lowest scores to make up for the fact that there are no make ups.

## My Expectations:

Work ethic: You are not to slack off (more on this in class)! You are to read ahead! Very Important! Read each section before coming to class. It's better if you have your mind working on the concepts before coming to class-it will be easier for you to keep up and ask intelligent questions.

Homework: Assigned homework will be collected at the beginning of the class when it's due. We will review each homework in class, so be prepared to discuss your attempts and ask questions. The homework for a section is due once I complete that section in class (whether I announced that I completed it or not. Ask me if you're not sure, or follow along in the text). Late homework will NOT be accepted. The excuse does not matter. I will drop two homeworks to make up for the fact that late ones cannot be handed in.

I expect your hand-in homework to follow certain guidelines (you lose points otherwise):
(1) Show all your work. This goes for homework and everything else you do in this classbesides some quizzes. If anything at all can be written down to show how you got from point A to B, then write it!
(2) Your homework must be stapled if it consists of more than one page.
(3) Your homework must be properly labeled: Your name, the HW number and topic(s) (see the syllabus for what these are).
(4) Only ONE HW number per stapled group.
(5) Be neat! And write legibly, for Pete's sake!

I also expect you to remember the math that you have done before this course. Math is cumulative. Each math class builds on the class that came before it. If you are not good at pre-
algebra, then algebra will be difficult, and so on. Be sure you've mastered the level of math that came before this. I will assume you are all experts at the lower level math courses. If this is not currently true for you, make it true, quickly; like by the end of the week.

Now, the matra.
Repeat the following to yourself 10 times a day. Five times when you wake up and five times before you go to sleep.

> I must NOT cancel across sums,
> I must NOT distribute powers across sums,
> I must NOT divide by zero, All these are blasphemy!
> But I will use brackets when appropriate.

So yeah, the above may seem like a joke, and it is somewhat, but here's the part that's not funny: do NOT commit any of the blasphemies mentioned above! Doing so will result in an instant zero (0) on any exam or quiz in which such an offense is made! Regardless of how well you did otherwise.

## Contact: You are to email me at the end of the first day of class, stating your name, your course and its section. I will deduct 5 points off your final grade if you fail to do this. I will

 be emailing important information from time to time; including progress reports, announcements and advice as needed. Please read the emails. If I email you, it means it is important-important enough for me to take the time to write an email so that you will have it in writing.Feedback: I encourage you to give me feedback about my teaching or the class, whether positive or negative (just make it constructive please). You can email me or talk to me, or if you don't want to reveal your identity, there is an anonymous feedback page on my website.

Help: FREE tutoring is available in the Marshak Building, room 418S. I am also a tutor there. The hours for this semester are: Mondays through Thursdays 12pm - 5pm and Fridays 12pm 4 pm . The tutoring center will be open starting September $2^{\text {nd }}$. There are also online resources available. A great place to get math help, even at odd hours, is www.mathhelpforum.com. There are a significant number of brilliant people from varying time zones who decide to spend their free time helping others with math. Take advantage of this great service. Another great resource on the web is wolframalpha.com. You can use that site to check your answers. Brilliant site. Of course, there are other online contenders like YouTube, Khan Academy, etc. Check them out. Google is your friend....and big brother. And don't forget your classmates. You should get the contact information of at least one person that you can study with or get missed notes from if you are absent, etc. You're all in this together, help each other out. And, of course, there is always me! Don't be afraid to come to me if you have questions or concerns. You can contact me via email or see me after class or during my office hour. My office hour is by appointment. I will also be at the tutoring center regularly and you can come and see me there.

Some class rules: Please silence your cell phones and don't use them when in class. Eating in class is NOT allowed. Drinking is permitted, as long as you remove your garbage afterwards.

Academic Integrity: Any act of academic dishonesty will be dealt with by applying the most stringent penalties permitted. Cheating includes, but is not limited to, receiving help during exams and submitting homework without properly acknowledging persons who assisted you. Please read carefully the Policy on Academic Integrity posted on the CUNY website with URL http://www1.cuny.edu/portal_ur/content/2004/policies/image/policy.pdf

I really don't like cheating. Please don't do it. There, I asked nicely.

Topics and Assignments:

| \# | Section/Topic | Assignment |
| :---: | :---: | :---: |
| 1 | 1.1 Functions and their representations | $\begin{aligned} & 5,7,19,21,22,23,25,26,29,35,37,39, \\ & 40,41,59,60,61,63 \end{aligned}$ |
| 2 | 1.2 Catalog of Essential Functions | 7, 11, 18, 21, 23, 27, 29, 31, 37, 38, 39, 43 |
| 3 | 1.3 Limit of a function ( $\varepsilon, \delta$ ) material is optional | 4, 5, 7 |
| 4 | 1.4 Calculating limits | $\begin{aligned} & 1,5,15,17,20,21,25,26,31,33,37,38, \\ & 40,41,43,44,49,50,51,55 \end{aligned}$ |
| 5 | 1.5 Continuity | 3, 4, 7, 27, 28, 33, 34, 39, 43 |
| 6 | 1.6 Limits involving infinity ( $\varepsilon, \delta$ material is optional) | $5,10,19,21,25,29,33,35,39$ |
| * | Exam \#1 on topics 1-6 |  |
| 7 | 2.1 Derivatives and rates of change | 2, 4, 5, 7, 8,11, 13, 23, 25, 27, 29, |
| 8 | 2.2 The derivative as a function | 19, 20, 22, 23, 25, 33, 36 |
| 9 | 2.3 Basic differentiation formulas | $\begin{aligned} & 1,3,4,5,7,9,10,16,19,20,29,32,36 \text {, } \\ & 38,40,43,44,50,53 \end{aligned}$ |
| 10 | 2.4 Product and quotient rules | $\begin{aligned} & 1,3,4,7,13,16,17,19,21,22,24,26,31, \\ & 32,33,34,41,48 \end{aligned}$ |
| 11 | 2.5 The chain rule | $\begin{aligned} & 1,7,12,13,14,17,21,25,29,32,35,36, \\ & 38,41,42,43,54 \end{aligned}$ |
| 12 | 2.6 Implicit differentiation | 1, 3, 4, 5, 9, 10, 12, 13, 19, 21, 22 |
| 13 | 2.7 Related rates | $3,4,11,12,15,17,20,21,24,29$ |
| 14 | 2.8 Linear approximation and differentials | 1, 4, 5, 6, 13, 17, 19, 21, 24 |
| * | Exam \#2 on topics 7-14 |  |
| 15 | 3.1 Maximum and minimum problems | 1, 5, 22, 24, 29, 31, 33, 37, 40, 41, 42, 43 |
| 16 | 3.2 Mean value theorem | 9, 13, 23, 24, 25 |
| 17 | 3.3 Derivatives and shapes of graphs | 1, 2, 3, 5, 10, 23, 24, 29, 33, 35 |
| 18 | 3.4 Curve sketching | 9, 10, 12, 13, 15, 19, 21, 24, 31 |
| 19 | 3.5 Optimization problems | $7,8,10,11,12,14,17,25,27,36,39$ |
| 20 | 3.6 Newton's method (omit) |  |
| 21 | 3.7 Anti-derivatives | $\begin{aligned} & 1,2,7,12,15,17,20,25,27,29,32,34, \\ & 40,43,50,51,53 \end{aligned}$ |
| 22 | Appendix B: Sigma notation | $1,4,15,18,21,25,26,29,30,31,32,35$ |
| * | Exam \#3 on topics 15-22 |  |
| 23 | 4.1 Areas and distance | 4, 5, 9, 16, 17, 18 |
| 24 | 4.2 The definite integral | $\begin{aligned} & 2,4,11,20,21,24,25,29,30,33,36,39, \\ & 40,41 \end{aligned}$ |
| 25 | 4.3 Evaluating definite integrals | $\begin{aligned} & 3,5,7,11,12,14,15,17,18,19,21,25, \\ & 29,43,44,46,58,59,61 \end{aligned}$ |
| 26 | 4.4 Fundamental theorem of calculus | 5, 7, 10, 11, 13, 14, 15, 19 |
| 27 | 4.5 Substitution rule | $\begin{aligned} & 2,3,4,6,7,10,11,14,21,22,23,26,27, \\ & 33,35,34,38,39,45,47 \end{aligned}$ |
| * | Exam \#4 on topics 23-27 |  |
| * | Final Exam: Monday, Dec. 22, 1pm - 315pm. | Location and seating assignments TBA |

Your real first assignment is to email me, as in the "Contact" instructions above.

## Information for WebAssign students

## The class key code for this class is: <will be given in class>

1. Go to URL www.webassign.net .
2. Click I Have a Class Key, located under the login button.
3. Enter the three parts of the instructor-provided Class Key in the three boxes. Then click Submit.
4. If your class is listed correctly, click on Yes this is my class. If not, try again: perhaps you typed the Class Key incorrectly. If you still get the message No, this is not my class, email your instructor.
5. Choose I need to create a WebAssign account and click Continue.
6. Enter your desired username, password (twice) as well as First Name, Last Name, Email address in the appropriate boxes. DO NOT enter a Student ID Number. Click Create My Account.
7. Click Log In Now.
7.If you have purchased the required textbook, choose enter an Access Code and click Continue.

If not, choose continue my trial period and click continue.
8. A list of assignments with due dates should appear.
9. Click on Log out at the upper right of the screen.

This concludes your account setup session. For subsequent logins, go to www.webassign.net , and enter your username, institution code, and password .

## Questionnaire

What is your major? $\qquad$
Are you sure you need this class? $\qquad$
What is the highest level of math you have yet to complete? $\qquad$
How did you get into this class? (Passed the prerequisite course, placed here upon college entry, placed by an advisor, etc)

Are there any dates during the Fall for which you will not be able to take an exam/quiz due to religious reasons? If so, please state the date(s) and "occasion(s)" below.

How good would you say you are at Algebra? $\qquad$ Precalc? $\qquad$
(Enter 5 for "I can do it in my sleep!", 4 for "I'm not the best at it, but pretty awesome.", 3 for
"I'm just OK; I'm good at the basics.", 2 for "I'm not the worst, but far from the best.", 1 for "The class was a blur that got more obscure over time!")

Any general feelings or concerns towards this course? (For example, are you: Scared? Excited? Curious? Indifferent? Based on your perceived ability in math, what grade are you expecting? etc)
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$\qquad$
$\qquad$

Are there any other relevant comments that you wish to add?

