MATH 201-EC: CALCULUS I
FALL 2016

JOHN ADAMSKI

Contact Information

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Office:	NAC 6/294B
Office Hours:	M 11-11:50am

Course Information

When & Where:	T, Th 8-9:15am, NAC 7/313A; W 11-11:50am, NAC 4/206
Textbook:	James Stewart's *Essential Calculus*, 2nd edition. Brooks/Cole, Cengage Learning. ISBN-13: 9781133112297 or 9781285129785* *This is a (cheaper) looseleaf version that comes with a PDF version and is available at the CCNY bookstore. Or you may just use the ebook that comes with your purchased access to WebAssign (read below).
Websites:	`johnadamski.com` will be used for posting course materials and Blackboard will be used for posting grades.
Academic Clendar:	`http://cuny.edu/academics/calendars/fall-2016.html`

Grades

15%	Homework	Daily, submitted through `webassign.net`
45%	Exams	Four midterm exams, lowest exam grade will be dropped
40%	Final Exam	Tuesday, December 19, 1-3:15pm, Room TBD

Overview

Each day we will learn new material and discuss how it applies to solving problems. Students are expected to ask questions. Sections in the textbook should be read carefully *before* they are covered in class. Exercises will be assigned daily and must be submitted electronically though `webassign.net` by 8:00am on their due date. Blackboard will be used for posting grades and course materials. Use of calculators on exams is not permitted.

Attendance and Lateness

Attendance will be taken at the beginning of each class. If you arrive after attendance has been taken, you are late. For a late arrival or an absence to be excused you must email me before class with a legitimate excuse. Two unexcused late arrivals and one unexcused absence will be forgiven. Additional late arrivals and/or absences will impact your course grade.

Syllabus

Lesson:	**Text Sec.**	**Suggested textbook problems:**
1. Functions	1.1	5,7,19,21,22,23,25,26,29,35,37,39,40,41,59,60,61,63
2. Important Functions to Know	1.2	7,11,18,21,23,27,29,31,37,38,39,43
3. An Introduction to Limits	1.3	4,5,7
4. Calculating limits, the Squeeze Theorem	1.4	1,5,15,17,20,21,25,26,31,33,37,38,40,41,43,44,49,50,51,55
6. Continuity	1.5	3,4,7,27,28,33,34,39,43
7. Limits involving infinity	1.6	5,10,19,21,25,29,33,35,39
8. The Derivative at a Point	2.1	2,4,5,7,8,11,13,23,25,27,29
9. The Derivative Function	2.2	19,20,22,23,25,33,36
10. Basic Differentiation Formulas	2.3	1,3,4,5,7,9,10,16,19,20,29,32,36,38,40,43,44,50,53
11. The Product and Quotient Rules	2.4	1,3,4,7,13,16,17,19,21,22,24,26,31,32,33,34,41,48
12. The Chain Rule	2.5	1,7,12,13,14,17,21,25,29,32,35,36,38,41,42,43,54
13. Implicit Differentiation	2.6	1,3,4,5,9,10,12,13,19,21,22
14. Related Rates	2.7	3,4,11,12,15,17,20,21,24,29
15. Linear Approximation and Differentials	2.8	1,4,5,6,13,17,19,21,24
16. Maximum and Minimum Values (Absolute Extrema)	3.1	1,5,22,24,29,31,33,37,40,41,42,43
17. The Mean Value Theorem	3.2	9,13,23,24,25
18. Relative Extrema 19. Concavity	3.3	1,2,3,5,10,23,24,29,33,35
20. Curve Sketching	3.4	9,10,12,13,15,19,21,24,31
21. Optimization	3.5	7,8,10,11,12,14,17,25,27,36,39
22. Antiderivatives	3.7	1,2,7,12,15,17,20,25,27,29,32,34,40,43,50,51,53
23. Sigma notation	App. B	1,4,15,18,21,25,26,29,30,31,32,35
24. Area Under a Curve	4.1	4,5,9,16,17,18
25. The Definite Integral	4.2	2,4,11,20,21,24,25,29,30,33,36,39,40,41
26. The First Fundamental Theorem 27. Indefinite integrals	4.3	3,5,7,11,12,14,15,17,18,19,21,25,29,43,44,46,58,59,61
28. The Second Fundamental Theorem	4.4	5,7,10,11,13,14,15,19
29. Integration by Substitution	4.5	2,3,4,6,7,10,11,14,21,22,23,26,27,33,35,34,38,39,45,47

Academic Integrity

Any act of academic dishonesty will be dealt with by applying the most stringent penalties permitted. Please read carefully the Policy on Academic Integrity posted at following URL. `http://web.cuny.edu/academics/info-central/policies/academic-integrity.pdf`

Video Lessons

A complete set of video lessons is available for this course at the following URL. `http://math.sci.ccny.cuny.edu/pages?name=Math+201+Video+Lessons`.

WebAssign Instructions

(1) Go to `www.webassign.net`.
(2) Click *I Have a Class Key*, located under the login button.
(3) Enter the Class Key **ccny 5932 1712** and then click *Submit*.
(4) If your class is listed correctly, click on *Yes this is my class*. If not, check to make sure you entered the Class Key correctly.
(5) Choose *I need to create a WebAssign account* and click *Continue*.
(6) Enter your desired username, password (twice) as well as your first name, last name, and email address in the appropriate boxes. DO NOT enter a Student ID Number.
(7) Click *Create My Account*.
(8) Click *Log In Now*.
(9) If you have purchased the text, click *Enter an access code*. If not click *Continue my free trial period*.
(10) A list of assignments with due dates should appear. You may wish to try the first assignment.
(11) Click on *Log out* at the upper right of the screen.

Course Learning Outcomes

After taking this course the student should be able to:

(1) Evaluate limits.
(2) Differentiate algebraic and trigonometric functions.
(3) Solve maximum and minimum problems.
(4) Solve related rates problems.
(5) Apply methods of calculus to curve sketching.
(6) Antidifferentiate polynomial and trigonometric functions.
(7) Approximate integrals by Riemann sums.
(8) Evaluate elementary integrals using substitutions.