Mathematics for the contemporary world
MATH 150, Section ECP2, Fall 2013
M, W, 9:30am – 10:45am, SH/377

Instructor: Jhevon Smith. ("Jhevon" is fine.)
Email: Jhevon@gmail.com
Office Hours: By appointment only.
Website: http://math.sci.ccny.cuny.edu/people?name=Jhevon_Smith
Text: Bennett & Briggs, Using & Understanding Mathematics: A Quantitative Reasoning Approach, 5th edition. Addison-Wesley, 2011.
Math Dept.: NAC 8/133   **Math Dept. website:** http://math.sci.ccny.cuny.edu

Calculator: Scientific calculators are not only permitted, they are required for the course. Bring your calculator to every class. It must have the square root function ($\sqrt{}$) and exponential keys (y^x). *You are NOT allowed to use your smart phone as a calculator.*

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

Letter Grade	G.P.A.	Grade	Letter grade	G.P.A.	Grade
A$^+$	4.00	97-100	C	2.00	70-76
A	4.00	95-96	**D**	**1.00**	**60-69**
A$^-$	3.66	90-94	**F**	**0**	**Below 60**
B$^+$	3.33	87-89			
B	3.00	84-86			
B-	2.66	80-83			

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 of your numerical grade will be as follows:

Quizzes: 20% (In general, you will have one quiz per week—I'll drop the worst two).
Homeworks: 5% (I will drop the worst two).
Participation: 5% (Based mostly on attendance).
In-class tests: 30% (I plan on giving 4 exams and will 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…

Attendance: Attendance will be taken at the beginning of class. You are *late* if you arrive after your name is called. If you are late twice, that is considered as one absence. I will deduct 2^{n-2} points, where *n* is the number of times you are absent, $1 < n < 5$. 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. 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: 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 will be collected and we will try to review each homework on its due date, so complete your assignments promptly. I will give you a due date, you have until the end of the week of this date or before the next test (whichever comes first) to hand in the homework. Points will be deducted for late homework. If you miss a class, it is your responsibility to catch up. You can see me during my office hour, or catch up on your own. It's up to you.

I expect your hand-in homework to follow certain guidelines (you lose points otherwise):
(1) Your homework must be stapled if it consists of several pages.
(2) Your homework must be properly labeled: Your name, the topic number *and* section (see the syllabus for what these are).
(3) Only ONE topic per stapled group. That is, if you are handing in the homework for several topics, do NOT staple them all together. But separate each topic and staple by topic.
(4) Be neat! And write legibly, for Pete's sake!

Contact: <u>You are to email me at the end of the first day of class, stating your name, your course and its section.</u> I will be emailing important information from time to time; including weekly progress reports, homework, announcements and advice as needed. Please read the emails. They might seem long sometimes, but 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 and Wednesdays 2pm – 7pm; Tuesdays and Thursdays 12pm – 5pm and Fridays 12pm – 4pm. 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. 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.

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.

Important Dates: (you may also consult the academic calendar on the CCNY website.)
In August:
08/28 – FIRST DAY OF CLASSES – YAY!
08/31 – FIRST DAY OF SATURDAY CLASSES

In September:
09/02 – College Closed (Labor Day)
09/03 – Last day to change your program (add or switch classes) AND last day to file for Pass/Fail Option. Be sure to research the consequences of doing this and the conditions under which you can do it BEFORE doing it (for example, this option cannot be done for classes in your major). It cannot be reversed! This is also the last day for the Audit Option.
09/04 – 09/06 – No classes scheduled (College Open)
09/13 – 09/14 – No classes scheduled (College Open)
09/17 – Last day to drop classes without the grade of "W"
09/18 – Course withdrawal period begins (A grade of "W" is assigned to students who officially drop a class) – No Refund!

In October:
10/13 – 10/14 – College Closed (Columbus Day)
10/15 – Monday Schedule
10/17 – Last day to select a major for this semester's TAP awards

In November:
11/06 – INC grades for Spring 2013 and Summer 2013 for Undergraduate students convert to FIN
11/08 – Course withdrawal period ends, last day to drop with the grade of "W". (You won't be able to officially drop a class after this date.)
11/27 – Friday Schedule
11/28 - 12/01 – College Closed (Thanksgiving)

In December:
12/13 – LAST DAY OF CLASSES
12/14 – LAST DAY OF SATURDAY CLASSES
12/16 - 12/23 – Final Exams
12/23 – End of Fall Term
12/24 - 12/25 – College Closed
12/30 – Last day for grade submissions - Fall 2013
12/31 – College Closed

Topics and Assignments:

Topic #	Section #	Problems to do
1	Review	Section 2a: problems 14, 15, 17; Section 2b: problems 20, 22
2	Section 1C	37-41 odd, 45c, 49c, 51c, 53, 57-63 odd, 69, 71
3	Section 1D	25, 29-43 odd; Negations hw sheet (attached): do all problems.
4	Section 2A	37-45 odd, 49-53 odd, 57-79 odd
5	Section 2B	23, 25 (just pounds), 33-37 odd, 41-47 odd, 53-59 odd, 65, 79
6	**Test 1**	**Exam on topics 1 through 5**
7	Section 3A	21-31 odd, 35-41 odd, 47-55 odd, 63-73 odd, 77-83 odd
8	Section 3B	15-29 odd, 33, 37, 49, 51, 55-63 odd
9	Section 3D	11-25 odd
10	Section 5A	17, 19, 27, 29, 33-45 odd
11	Section 5B	9-19 odd, 23, 27-31 odd, 35, 39-43 odd
12	Section 5C	15, 25-31 odd, 35, 47
13	**Test 2**	**Exam on topics 7 through 12**
14	Section 5D	13-21 odd, 27, 31, 32
15	Section 9A	9, 19-25 odd
16	Section 9B	19-31 odd
17	Section 8A	9-15 odd
18	Section 8B	25-33 odd, 39-51 odd
19	Section 9C	27-33 odd, 37, 41
20	**Test 3**	**Exam on topics 14 through 19**
21	Section 6A	13-19 odd
22	Section 6B	15 (a,b), 17 (a,b)
23	Section 6C	19, 21-28, 37, 38
24	Section 6D	Skipping for now
25	**Test 4**	**Exam on topics 21 through 24**
26	Final Exam	Cumulative Exam - Date, Time, Location TBA

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

NEGATIONS HOMEWORK SHEET

Find the negations of the following statements:

1. All snakes are poisonous.

2. Some auto mechanics are incompetent.

3. No dogs can talk.

4. Some personal items are not covered by this insurance policy.

5. All married couples file a joint tax return.

6. Some scientists believe that an asteroid collision led to the extinction of dinosaurs.

7. All polygons have four sides.

8. All modern art is difficult to understand.

9. Some factories emit toxic waste.

10. Some people are unable to deny that the war in Iraq is unsuccessful.

11. All Frenchmen are unable to deny that their cooking is bad.

12. No flowers are ugly.

COURSE LEARNING OUTCOMES

DEPARTMENT: MATHEMATICS

COURSE #: 15000 **COURSE TITLE:** Mathematics for the Contemporary World CATEGORY: Required for BA students unless Pre-calculus is taken TERM OFFERED: every term PRE-REQUISITES: None PRE/CO-REQUISITES: HOURS/CREDITS: 3 hr./wk. 3 credits DATE EFFECTIVE: January 18, 2007 COURSE COORDINATOR: Rochelle H. Ring	**CATALOG DESCRIPTION** Bombarded by statistics, assailed by advertisers and advocates of all persuasions, the average person needs mathematics to make sense of the world. This course aims to give students the tools needed to critically examine the quantitative issues of our times. Students will learn the basics of logical reasoning, using graphs and algebra to create quantitative models and the role of statistics and probability in analyzing data. We will apply these ideas to assess the quantitative claims raised in contemporary case studies commonly discussed in the media.

COURSE LEARNING OUTCOMES

Please describe below all learning outcomes of the course, and indicate the letter(s) of the corresponding Departmental Learning Outcome(s) (see list at bottom) in the column at right.

After taking this course the student should be able to:

Contributes to Departmental Learning Outcome(s):

1.   identify fallacious arguments and test the validity of an argument by the use of Venn

diagrams or the laws of logic.   c

2.   solve quantitative problems by identifying units and use rules for operations on quantities with

 units to solve 'real-world' problems.   a, c, d

3.   convert among standardized units and solve complex 'real-world' problems using a calculator.   a, c, d

4.   interpret and calculate in examples with subtle uses of percentages describing change or

comparison in examples drawn from media sources.   a, c, d

5.   interpret and manipulate very large/small numbers including the use of scale ratios.   a, c, d

6.   identify types of studies and sampling methods and evaluate sources of bias in statistical studies. c

7.   construct and interpret statistical graphs and tables and extract data from graphics from

 media sources.   a, c, d

8.   characterize data distributions using measures of central tendency and variation and

 solve problems involving normally distributed data.   a, c, d

9.   create and use functions to model linear processes.   a, b, c, d

10.   contrast linear and exponential growth/decay, identifying situations in which each occurs.   a, b, c, d

11.   convert between percentage rates (for growth/decay) and doubling(or halving) times

and solve problems involving exponential change.   a, c, d

Note: CLO d (use of technology) is limited to the use of the calculator

COURSE ASSESSMENT TOOLS

Please describe below all assessment tools that are used in the course.
You may also indicate the percentage that each assessment contributes to the final grade.
1. Exams, quizzes, classwork (60 %)

2. Final exam (40%)

DEPARTMENTAL LEARNING OUTCOMES *(to be filled out by departmental mentor)*

a. perform numeric and symbolic computations
b. construct and apply symbolic and graphical representations of functions
c. model real-life problems mathematically
d use technology appropriately to analyze mathematical problems
e. state (e1) and apply (e2) mathematical definitions and theorems
f. prove fundamental theorems
g. construct and present (generally in writing, but, occasionally, orally) a rigorous mathematical argument.

Questionnaire

What is your major? _____

Are you sure you need this class? _____

What is the highest level of math you *have to* complete? _____

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 spring 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.

_____

_____

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)

_____

_____

_____

_____

_____

_____

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

_____

_____

_____