### **Precalculus**

# MATH 195, Section GH, Spring 2019 M, W 6:00pm – 7:40pm, NAC 5/102

**Instructor:** Jhevon Smith ("Jhevon" is fine.)

Email: JhevonTeaches@gmail.com

Office Hour: Mondays 5:00pm – 6:00pm, or by appointment. Office: NAC 6/291B.

My Website: http://math.sci.ccny.cuny.edu/people?name=Jhevon\_Smith

Class Website: <a href="http://math.sci.ccny.cuny.edu/pages?name=For+Math+195+GH+Spring+2019">http://math.sci.ccny.cuny.edu/pages?name=For+Math+195+GH+Spring+2019</a>

**Text:** Stewart, Redlin, Watson. <u>Precalculus, 7<sup>th</sup> edition</u>, published by Cengage. **Math Dept.:** NAC 8/133 **Math Dept. website:** <a href="http://math.sci.ccny.cuny.edu/">http://math.sci.ccny.cuny.edu/</a> **Math 195 Website:** <a href="http://math.sci.ccny.cuny.edu/courses?name=Math\_19500">http://math.sci.ccny.cuny.edu/courses?name=Math\_19500</a>

**Websites:** I gave you my website since I will be posting documents and instructions for the class there, such as: review topics, announcements, solutions to tests and quizzes, etc. I gave you the math 195 website so you can access other resources, like past finals. I gave you the math. dept. website because, well, you should have it.

**Calculators/Technology:** While you may use these to do your homework or explore some topic in depth, you will not be allowed to use them on any quiz or exam.

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

Letter	G.P.A.	Grade	Letter grade	G.P.A.	Grade
Grade					
$A^+$	4.00	97-100	C+	2.33	77 - 79
A	4.00	95-96	С	2.00	74-76
A <sup>-</sup>	3.66	90-94	C-	1.66	70-73
$\mathbf{B}^{+}$	3.33	87-89	D	1.00	60-69
В	3.00	84-86	F	0	Below 60
B-	2.66	80-83			

While a grade of D is technically passing, you will need a minimum grade of C to be able to pass this course and move on to the next course in the sequence, Math 201. But why not aim for an A?

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 grade breakdown is as follows:

Quizzes: 15% (In general, you will have one quiz per week—I'll drop the worst two).

**Homework: 10%** (Homework will be assigned online).

**In-class tests:** 30% (Two non-cumulative exams). **Participation:** 5% (Based mostly on attendance).

**Final Exam: 40%** (This is a cumulative exam given at the end of the course).

**Make-up Exams/Quizzes:** There are no make-ups for a missed quiz or HW. Exams for tests will only be given if you missed the exam for very compelling reason(s)—such as severe illness or death. If such extenuating circumstances occur, you must inform me immediately, and provide proof of the situation. Afterwards, a make-up can be scheduled.

**Attendance:** Attendance will be taken at the beginning of class. You are *late* if you arrive after your name is called. 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.

#### **My Expectations:**

Work ethic: You are not to slack off! 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, expand your understanding and ask intelligent questions. Later in this syllabus, the topics that we will cover are listed in the order we will cover them, so you can know where we're going and what you need to prepare for ahead of time. Start working hard from day 1, don't put yourself in a position where you'll have to catch up. Prevention is better than cure. I expect you to give 110% effort here. Even if you've taken precalculus before—no, *especially* if you've taken precalculus before. 100% might do if you're great at algebra.

To do well in this course, you must study <u>daily</u>. Not just before class or before a test. Work through HW as soon as assigned, begin working on the HW for a section the day it is done in class. This is VERY important. Just showing up to class is not enough. You will need consistent practice to do well.

Try problems yourself before asking for help or discussing with others. If you need help, see me, or go to tutoring. Do not stop working when you "feel" you've understood the material. It is important that you keep studying until you can solve problems as a matter of routine, and you can consistently get problems correct.

Homework: For homework we will be using the WebAssign on-line homework system. If you've already purchased in for your Math 190 class at City College, you do not need to purchase it again. I will give you the class code as soon as it becomes available to me. This should be in the first or second class. If you do not have WebAssign, you can purchase via the link provided on this website: <a href="http://math.sci.ccny.cuny.edu/courses?name=Math\_19500">http://math.sci.ccny.cuny.edu/courses?name=Math\_19500</a>. Purchasing through this link will give you access to the e-text as well as the HW for a discounted rate. Once purchased, enter class code ccny 8956 8394. Each assignment must be completed by the due date listed. Note that the dates are dynamic, so as the course goes on, I may extend or shorten due dates depending on how quickly or slowly we're moving through a topic. So pay attention and set up email alerts in the system to make sure you don't miss anything. Late homework will NOT be accepted. The excuse does not matter. The topics that are to be covered in class are listed on the second to last page of this document, along with some suggested problems from the textbook. These are for you own study; you do not need to hand in any written homework.

**Prerequisite knowledge:** I also expect you to remember the math that you have done before this course. Math is cumulative. Each math class in a sequence builds on the class that came before it. If you are not good at algebra, then precalc will be difficult; if you're not good at algebra and precalc, then calculus 1 will be difficult; and so on. Be sure you've mastered the level of math that came before this. I will have to run the class like you are all experts at the lower level math courses. If this is not currently true for you, make it true, quickly. There is some overalap with this course and the previous one, but ultimately we can't spend as much time on this material as you did the first time. There are plenty of resources that can be accessed to help you catch up, see the Help section of this syllabus and take advantage of these resources.

**Blasphemies:** At this level, certain mistakes will be considered unforgivable and will result in an instant zero in any problem where such mistakes are made (you lose your chance at partial credit). These are:

- 1. Canceling across sums
- 2. Distributing powers across sums
- 3. Dividing by zero
- 4\*. While you probably won't be penalized outright for this, please use parentheses when appropriate. If you make a mistake because you were sloppy with parentheses (or notation in general) you will be punished heavily for it.

Do NOT commit any of the blasphemies mentioned above! Doing so will result in zero (0) credit for any problem in which such an offense is made! Regardless of how well you did otherwise.

**Responsibility:** I do expect a certain level of responsibility, maturity, and integrity from you. You've made it this far, which means you have what it takes to get through this class. No excuses, and no begging for grades at the end of the semester. And no sob stories. Discuss any issues you may have with me as soon as they arise and we will come up with a plan to tackle them. Understand, that while I want to see every one do well and have no ill will towards anyone, it is \*not\* my responsibility to keep your GPA up, or to help you keep that scholarship, or whatever reason it is important that you do well here. These are your responsibilities. My responsibility is to facilitate you learning the material in this syllabus. I shall keep that responsibility. Please keep yours.

#### **Contact:**

I will be emailing important information from time to time; including progress reports, announcements and advice as needed (to the email address listed for you on CUNYfirst. If this is not a good email address, notify me). Please read the emails. If I email you, it means it is important. You may get emails from my email address listed on the first page, or from JupiterGrades, the online gradebook system I'll be using to record your grades.

**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.

<u>Help:</u> Besides your online HW platform, there are MANY resources available to help you succeed in this class. Some of these are:

- First, there's me! Come see me during my office hours if you're having any difficulties. Drop by during my office hours or email me to set up an appointment.
- I'll be uploading reviews, as well as solutions to tests and answers to quizzes on the webpage for the class. Be sure to check these out. The topics list towards the end of this document also has suggested problems for you to attempt from the text. These will not be collected, but it is highly recommended that you attempt them. You can see me or a tutor if you have issues. Which brings me to the next point.
- FREE tutoring is available in the Marshak Building, room 403. The hours for this semester are: Mondays through Thursdays 12pm 5pm, and Fridays 12pm 4pm. Tutoring begins during the second week of classes usually.

- There are also online resources available. A great place to get math help, even at odd hours, is <a href="http://mathhelpforum.com/">http://mathhelpforum.com/</a>. 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 <a href="https://www.wolframalpha.com/">https://www.wolframalpha.com/</a>. You can use that site to check your answers. Brilliant site. <a href="https://www.symbolab.com/">https://www.symbolab.com/</a> is another great site to check your answers, especially if you know what you'd like to compute and like using templates. I use <a href="http://graph.tk/">http://graph.tk/</a> if I need to graph something quickly. Some kids like <a href="https://www.desmos.com/">https://graph.tk/</a> if I need to graph something quickly. Some kids like <a href="https://www.desmos.com/">https://www.desmos.com/</a> for their graphing and computational needs. Of course, there are other online contenders like YouTube (where I'll also be posting videos of our lectures), Khan Academy, Paul's Online Math Notes, etc. Check them out. Google is your friend...and big brother. A quick Google search can do wonders.
- As of last semester, a friend of mine, professor Quinn Culver, is offering free math help available on his live stream, <a href="https://www.twitch.tv/quinnculver">https://www.twitch.tv/quinnculver</a>, which is running Sunday-Thursday from 9pm-midnight EST. If you check him out, be sure to tell him I sent you.
- 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.

**Student Disability Services:** If you have a disability that may affect your academic performance, please go to the Student Disability Services (SDS), A.K.A. The AccessAbility Center (AAC), office as soon as you possibly can. You may be entitled to extra time or other accommodations. Everyone should be given an equal opportunity to do well; be sure to see the SDS if you believe you may qualify for benefits that will allow you to put your best foot forward. It is a good idea to touch base with them even if you have a disability that you don't think will affect your academic performance. For more information, see: https://www.ccny.cuny.edu/accessability

**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. If I catch you with a cellphone in an exam, I will take away your exam and give you an F for that exam. If I catch you with a cellphone in the final, I will take away your final and give you an F for the course. Similar, or more severe actions, will be taken if I catch you cheating by other means. Work hard, be honest. If you do the right things, cheating won't be necessary. And passing a class for real is a lot more rewarding anyway.

**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 <a href="http://www1.cuny.edu/portal\_ur/content/2004/policies/image/policy.pdf">http://www1.cuny.edu/portal\_ur/content/2004/policies/image/policy.pdf</a>

I really don't like cheating; the university doesn't like it either. Please don't do it. There, I asked nicely. Don't make me act on this warning. I will and it's not comfortable for anyone.

**Some advice:** Believe in yourself; listen to Jhevon; work hard AND work smart. Also remember that one of the definitions of insanity is to do the same thing over and over and expect different results. More on this in class. Be honest with yourself and seek help when you need it. The quizzes, homework and tests will let you know when you need help, not your personal feelings about how much you understand. Pay attention for more advice as the semester goes on.

## **Selected Events from the Spring 2019 Academic Calendar**

For the full calendar: <a href="https://www.ccny.cuny.edu/registrar/spring-2019-academic-calendar">https://www.ccny.cuny.edu/registrar/spring-2019-academic-calendar</a>

DATES	DAYS	
January 25	Friday	Classes begin; Yay!
	I	Last day to add a course to an existing enrollment;
January 31	Thursday	Last day to apply for Audit Options;
		Last day to drop without the grade of "WD"
		Course Withdrawal drop period begins (A grade of "WD" is assigned to
February 01	Friday	students who officially drop a course);
		Verification of Enrollment Rosters available to faculty;
February 12	Tuesday	College Closed
February 14	Thursday	Last day to drop without the grade of "W"; Course withdrawal drop period ends (Last day for "WD" grades);
		Verification of Enrollment Rosters due from faculty;
February 18	Monday	College is closed
April 01	Monday	Course withdrawal period ends. Last day to withdraw from a course with a grade of W;
		Last day to file for Pass/NC option;
April 19 –	Friday –	
A 21.00	G 1	Spring Recess
April 28	Sunday	Last Day of Classes
May 14	Tuesday	Last Day of Classes  Reading Day / Final Examinations
May 15 -	Thursday-	Reading Day / Final Examinations
Way 10 -	Thursday-	Final Examination - Day/Evening Classes
May 22	Wednesday	,
May 22	Wednesday	End of Spring Term
<b>May 27</b>	Monday	College Closed
May 28	Tuesday	Final Grade Submission Deadline
May 31	Friday	Commencement

**Topics and suggested problem sets from text:** 

#	Section/Topic	Suggested problems for practice
1	1.1 The Real Numbers*	29-32, 35-38,47-76
2	1.2 Exponents and radicals*	9-82, 83, 85
3	1.3 Algebraic Expressions*	9-126
4	1.4 Rational Expressions*	1-96
5	1.5 Equations*	2-116
6	1.8 Inequalities*	7-90,101-104
7	1.9 The Coordinate Plane; Graphs of Equations; Circles*	25-45,55-60,83-114
8	1.10 Lines*	9-52,67-78
9	2.1 Functions (omit $[x]$ )*	17-76
10	2.2 Graphs of functions*	2-28,33-46,49-68
11	2.3 Getting info from graphs*	7-16,31-34,43-46
12	2.4 Average Rate of Change of a function*	7-31
13	2.6 Transformations of functions*	1-74, 83-90
14	2.7 Combining functions*	7-19,27-72
15	2.8 One-to-one functions and their Inverses*	7-74
16	3.1 Quadratic Functions (omit modeling)*	1-44,51-54,63
17	3.2 Polynomials and their graphs*	1-44,51-54
*	Test 1 on topics 1 through 17	Wed, March 27 in class. Date is firm, even if some topics are missed.
18	3.3 Dividing polynomials	1-24,53-62
19	4.1 Exponential Functions*	7-44
20	4.2 The Natural Exponential function	3-16
21	4.3 Log Functions*	1-78
22	4.4 Laws of Logs	7-66
23	4.5 Exponential and Logarithmic Equations	1-68,77-88
24	4.6 Modeling with exponential functions	5-8,11-14,19-23
25	5.1 The Unit Circle	1-60
26	5.2 Trig functions	1-70
27	5.3 Graphs of trig functions	1-54
28	5.5 Inverse trig functions and their graphs	1-10,23-48
29	7.1 Trig identities (omit cofunction IDs)	1-28,31-88
30	7.2 Addition and Subtraction formulas	1-54
31	7.3 Double-Angle and Half-Angle formulas	3-10,17-42,43-50
32	7.4 Basic Trig equations	1-56
33	10.1 Systems of linear equations in two variables*	5-14,21-50,59-75 Manday May 12
**	Test 2 on topics 18 through 33	Monday, May 13
**	Final Exam	Mon May 20, 6:00pm – 8:15pm, regular classroom

# **Anonymous Questionnaire**

What is your major?
Are you sure you need this class? Are you sure?
Will you need to do more math after this?
What is the highest math class you've taken?
Rate your interest: 5 = math is my life and I'm so excited to be here, down to 1 = I don't really like math, but I'm just here to get a minor or satisfy some requirement.
How good are you at Algebra? Precalc? Calc 1? (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!", 0 for "I've never taken this class before.")
Do you work? Full-time or Part-time?
Are there any dates during the semester 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?