Fall 2020	**MATH150**	ALGEBRA and TRIGNOMETRY

Credits:	**3**
Type of Course:	**Lecture, problem solving**
Class Meetings:	**15**
Prerequisites:	**None**
Time and Location:	**Mondays: 6:30pm – 9:20pm** *via REMOTE LEARNING – ZOOM MEETINGS*
Class Resources:	**http://www.charlesrubenstein.com/150**
Instructor:	**Dr. Charles Rubenstein; Professor**
	Text/Voicemail Mobile: +1 (516) 884-7642 Email → crubenst@pratt.edu
	Office Hours: Wednesday Zoom Meetings by appointment *(10:00am-2:00pm)*
Syllabus date:	**18 August 2020 – *Revision 3***

I. Course Overview:

The primary purpose of this course is to learn the foundations of algebra and trigonometry. Attention will be paid to problem-solving skills and the applications of algebra and trigonometry to solving problems dealing with physical systems you will encounter in your studies, and your career. Topics include equations and inequalities, functions, polynomial functions, trigonometric functions, and systems of equations and inequalities.

II. Learning Outcomes:

Upon completion of the course students will be able to:

- manipulate algebraic expressions and calculate numerical values
- solve linear equations
- set up and solve practical "word" problems
- factor algebraic expressions and graph functions
- solve quadratic equations
- use analytic geometry to find the slopes and equations of straight lines
- use and manipulate exponents, logarithms, and the trigonometric functions (*sine, cosine, tangent*, etc.)
- find values for the sides and angles of geometric figures
- calculate areas and volumes of geometric figures and solids
- solve problems of two variables

III. Course Requirements:

a. Attendance: Institute policy - arriving more than fifteen minutes late to Zoom class will constitute a class absence.
Two   (2) unexcused absences may result in a whole letter grade deduction from your final grade.
Three (3) unexcused absences will result in an automatic "F" for the course.
b. Homework: *Homework assigned at a class session will be due at the next week's class session.*

IV. Method of Assessment and Grading:

Your final grade will be comprised of class participation, ten homework quizzes, two exams and a final.
THERE WILL BE NEITHER MAKE-UP QUIZZES NOR MAKE-UP EXAMS.
IV.a. Homework and Homework Quizzes: (30% of Final Grade)
There will be **ten (10) Quizzes** *(3% per quiz),* **Worth 30%** of your final grade. Homework is posted on the class website. Each week's assignment is due at 12:00Noon the day of the class. Three of the assigned problems will be selected and act as a quiz with each correct answer worth 1% (3% max). All homework problems will be reviewed in class. *Although quizzes only account for 30% of your final grade, homework problems will be the basis for all exams*.
IV.b. Exams: (70% of Final Grade)
There will be two (2) **1-hour take home written exams each worth 20%** of your final grade.
There will be a **3-hour take home written comprehensive Final exam worth 30%** of your final grade.

V. Required Course Materials:

* Textbook: **"College Algebra & Trigonometry", Sixth edition**, by Michael Levitan, Bernard Kolman, and Arnold Shapiro, BVT Publishing, LLC, 2011. ISBN: 978-1-60229-880-4
* Graphing Calculator: Student's Choice; TI-83 graphing calculator suggested.

VI. About the Math Placement Exam and Tutoring

All students must take a Math Placement Exam to see if they are ready to begin their study of Calculus. The exam will be administered online. Students that pass the math placement exam will proceed to Calculus 1 and those who do not pass the exam MUST take and pass Math150. Please note that the Department typically makes a Science and Math Tutor available (days and times will be announced in class). There is also the Pratt Writing Resource Room located on the first floor of North Hall (across from the bank). This center can help you produce the best work possible. You can make an appointment by phone (+1 718-636-3459) or email (**wtc@pratt.edu**)

VII. Pratt Institute Policies
Policy 1. Academic Integrity Policy

The link to the full policy and standards (Last updated 2017) is https://www.pratt.edu/student-life/student-affairs/office-of-the-vice-president-for-student-affairs/student-policies/community-standards/academic-integrity/

At Pratt, students, faculty, and staff do creative and original work. This is one of our community values. For Pratt to be a space where everyone can freely create, our community must adhere to the highest standards of academic integrity.

Academic integrity at Pratt means using your own and original ideas in creating academic work. It also means that if you use the ideas or influence of others in your work, you must acknowledge them.

At Pratt,
        • We do our own work,
        • We are creative, and
        • We give credit where it is due.

Based on our value of academic integrity, Pratt has an Academic Integrity Standing Committee (AISC) that is charged with educating faculty, staff, and students about academic integrity practices. Whenever possible, we strive to resolve alleged infractions at the most local level possible, such as between student and professor, or within a department or school. When necessary, members of this committee will form an Academic Integrity Hearing Board. Such boards may hear cases regarding cheating, plagiarism, and other infractions described below; these infractions can be grounds for citation, sanction, or dismissal.

Policy 2. Academic Integrity Code

When students submit any work for academic credit, they make an implicit claim that the work is wholly their own, completed without the assistance of any unauthorized person. These works include, but are not limited to exams, quizzes, presentations, papers, projects, studio work, and other assignments and assessments. In addition, no student shall prevent another student from making their work. Students may study, collaborate and work together on assignments at the discretion of the instructor.

Examples of infractions include but are not limited to:
        1. Plagiarism, defined as using the exact language or a close paraphrase of someone else's ideas without citation.
        2.   Violations of fair use, including the unauthorized and uncited use of another's artworks, images, designs, etc.
        3.   The supplying or receiving of completed work including papers, projects, outlines, artworks, designs, prototypes, models, or research for submission by any person other than the author.
        4.   The unauthorized submission of the same or essentially the same piece of work for credit in two different classes.

        5.   The unauthorized supplying or receiving of information about the form or content of an examination.
        6.   The supplying or receiving of partial or complete answers, or suggestions for answers; or the supplying or receiving of assistance in interpretation of questions on any examination from any source not explicitly authorized. (This includes copying or reading of another student's work or consultation of notes or other sources during an examination.)

For academic support, students are encouraged to seek assistance from the Writing and Tutorial Center, Pratt Libraries, or consult with an academic advisor about other support resources. Refer to the Pratt website for information on **Academic Integrity Code Adjudication Procedures**: https://www.pratt.edu/the-institute/administration-resources/office-of-the-provost/policies-processes-and-forms/

Policy 3. Attendance Policy

The link to the full policy and standards (Last updated 2017) is
https://www.pratt.edu/uploads/attendance_policy_clean_13_feb_17.pdf
[**NOTE:** the specific attendance policy for this course is contained in section **III.a.** above]

General Pratt Attendance Policy:
Pratt Institute understands that students' engagement in their program of study is central to their success. While no attendance policy can assure that, regular class attendance is key to this engagement and signals the commitment Pratt students make to participate fully in their education.

Faculty are responsible for including a reasonable attendance policy on the syllabus for each course they teach, consistent with department-specific guidelines, if applicable, and with Institute policy regarding reasonable accommodation of students with documented disabilities. Students are responsible for knowing the attendance policy in each of their classes; for understanding whether a class absence has been excused or not; for obtaining material covered during an absence (note: instructors may request that a student obtain the material from peers); and for determining, in consultation with the instructor and ahead of time if possible, whether make-up work will be permitted.

Consistent attendance is essential for the completion of any course or program. Attending class does not earn students any specific portion of their grade, but is the pre-condition for passing the course, while missing class may seriously harm a student's grade. Grades may be lowered a letter grade for each unexcused absence, at the discretion of the instructor. Even as few as three unexcused absences in some courses (especially those that meet only once per week) may result in an automatic "F" for the course. (Note: Students shall not be penalized for class absences prior to adding a course at the beginning of a semester, though faculty may expect students to make up any missed assignments.)

Pratt Institute respects students' requirements to observe days of cultural significance, including religious holy days, and recognizes that some students might need to miss class to do so. In this, or other similar, circumstance, students are responsible for consulting with faculty ahead of time about how and when they can make up work they will miss.

Faculty are encouraged to give consideration to students who have documentation from the Office of Health and Counseling. Reasonable accommodations for students with disabilities will continue to be provided, as appropriate.

Refer to the Pratt website for information on **Attendance**: https://www.pratt.edu/the-institute/administration-resources/office-of-the-provost/policies-processes-and-forms/

Policy 4. Students with Disabilities and Accessibility

Pratt Institute is committed to the full inclusion of all students. If you are a student with a disability and require accommodations, please contact the Learning/Access Center (L/AC) at LAC@pratt.edu to schedule an appointment to discuss these accommodations. Students with disabilities who have already registered with the L/AC are encouraged to speak to the professor about accommodations they may need to produce an accessible learning environment.

Requests for accommodation should be made as far in advance as reasonably possible to allow sufficient time to make any necessary modifications to ensure the relevant classes, programs, or activities are readily accessible. The Learning/Access Center (L/AC) is available to Pratt students, confidentially, with additional resources and information to facilitate full access to all campus programs and activities and provide support related to any other disability-related matters.

Policy 5. Human Rights, Equity, BERT, and Title IX

Pratt Institute seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of harassment, discrimination, bias, or sexual misconduct, we encourage you to report this.

If you inform me of an issue of harassment, discrimination or bias, or sexual misconduct I will keep the information as private as I can, but I am required to bring it to the attention of the institution's Title IX Coordinator. You can access Title IX services by emailing titleix@pratt.edu. You can also speak to someone confidentially by contacting our non-mandatory reporters: Health Services at 718-399-4542, Counseling Services 718-687-5356 or Campus Ministries 718-596-4840.

In cases of Bias, this information may go to our Bias Education & Response Taskforce (BERT). You can contact BERT by either reaching out directly via bert@pratt.edu or by contacting the BERT Co-Chair and Title IX Coordinator, Dr. Esmilda Abreu.

For more information, please refer to the **Community Standards webpage**: https://www.pratt.edu/student-life/student-affairs/office-of-the-vice-president-for-student-affairs/student-policies/community-standards/

VIII. *Preliminary Draft* SEMESTER SCHEDULE:

MATH150 Section 01: ONLINE Mondays 6:30pm-9:20pm

NO MATH150 CLASS on Monday 9/07/20 and Monday 9/28/20
– class time made up by providing take-home exams –

Session 01 – (8/24/20) Introduction: Numbers, Arithmetic Operations, Fractions
Session 02 – (8/31/20) Manipulation of Algebraic Expressions
      Readings Due: Chapter 1, Pages 1-17.

NO CLASSES: Monday 9/07/20 - Labor Day – Pratt Holiday

Session 03 – (9/14/20) Solving Linear and Quadratic Equations of One Variable
      Readings Due: Chapter 1, finish. Homework Assignment Set #1 due 2 12:00Noon (*)
Session 04 – (9/21/20) Solving Equations of Two Variables
      Readings Due: Chapter 2. Homework Assignment Set #2

NO CLASS: Monday 9/28/20 - Instructor's Holiday

Session 05 – (10/5/20) Exam #1 (*1 hour Take home Emailed 10/7 @ Noon*) (*worth 20% of final grade*)
      Exam #1 will cover the first five weeks (1-5) of Math 150 *(including today's session!).*
      One (1) double-sided, handwritten, 8.5"X11" formulas and reference sheet permitted.
      Polynomial Functions
      Readings Due: Chapter 3. Homework Assignment Set #3
Session 06 – (10/12/20) Exam #1 DUE by 12Noon. Polynomial Functions, continued
      Readings Due: Chapter 4.
Session 07 – (10/19/20) Review of First Exam. Functions, Graphing, Exponents and Logarithms
      Readings Due: Chapter 5. Homework Assignment Set #4
Session 08 – (10/26/20) Trigonometric Functions, Pythagorean Theorem
      Readings Due: Chapter 6. Homework Assignment Set #5
Session 09 – (11/2/20) Applications of Trigonometry
      Readings Due: Chapter 7. Homework Assignment Set #6
Session 10 - (11/9/20) Exam #2 (*1 hour Take home Emailed 11/11 @ Noon*) (*worth 20% of final grade*)
      Exam #2 will cover the second five weeks (6-10) of Math 150 *(including today's session!).*
      One (1) double-sided, handwritten, 8.5"X11" formulas and reference sheet permitted.
      Analytic Trigonometry: Identities, Graphing
      Readings Due: Chapter 8. Homework Assignment Set #7
Session 11 – (11/16/20) Exam #2 DUE by Noon. Areas and Volumes of Geometric Figures and Solids
      Readings Due: Chapter 9. Homework Assignment Set #8
Session 12 – (11/23/20) Review of Exam #2. Systems of Equations and Inequalities
      Readings Due: Chapter 10. Homework Assignment Set #9
Session 13 – (11/30/20) (*2 hour Take home Final Exam Emailed 12/2 @ Noon*)
      Review of Algebra and Trigonometry Topics; Quiz on Homework Assignment Set #10
      The Final Exam will cover the entire semester's work, concentrating on Weeks 11-13.
      Up to TWO (2) double-sided, handwritten, 8.5"X11" formulas and reference sheets permitted.
Session 14 – (12/7/20) Final Exam DUE by 12Noon (*worth 30% of final grade*)

* NOTE: Homework is due at 12:00Noon the day of the class. Three (3) problems will be selected for review as a quiz. Each is worth 1% (3% max/homework).