

# York College of the City University of New York

## College Algebra (math 104), Fall 2019

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**Textbook:** College Algebra (12<sup>th</sup> Edition) Lial, Hornsby & Schneider. Published by: Addison-Wesley

**Course Description:** Basic concepts of sets, algebra, graphs and functions, linear, rational, exponential, and logarithmic functions and their applications. Not to be used to satisfy the general education requirement and not to be used to satisfy the requirement for mathematics major.

**Prerequisites:** Mathematics 102 (intermediate algebra) or passing the CUNY math placement exam.

**Course Objectives:** After completion of the course, students should be able to:

- (1) Understand sets and operations upon them. Understand basic concepts and properties of numbers.
- (3) Combine, simplify and perform operations on polynomials. Use exponential notation including the use of negative and non-integer exponents.
- (5) Solve simple equations of different types: linear equations in one variable and quadratic equations through factoring, completing the square and the quadratic formula. Solve linear inequalities and absolute value inequalities.
- (7) Describe functions, their domains, ranges, intervals on which they are increasing/decreasing/constant and be able to recognize and graph functions of various types on the Cartesian plane. Calculate function values and find inverses of simple functions.
- (9) Understand, solve, graph and apply exponential and logarithmic equations including familiarity with the change of base formula to evaluate logarithms.
- (10) Apply functions of various types to real-world problems and situations Apply essential mathematics literacy in quantitative and mathematical reasoning

**Grading:**

Area	Grade (percentage)
<b>Attendance &amp; Class Behavior</b>	<b>10 %</b>
<b>Home Work</b>	<b>25 %</b>
<b>Midterm Exam</b>	<b>20 %</b>
<b>Class recitation/class work</b>	<b>15 %</b>
<b>Final Exam</b>	<b>30 %</b>
<b>Total</b>	<b>100 %</b>

**Final Grades will be allocated according to the following scale:**

A+ = 4.00; 97.0 – 100  
A = 4.00; 93.0 - 96.9  
A- = 3.70; 90.0 - 92.9  
B+ = 3.30; 87.0 - 89.9  
B = 3.00; 83.0 - 86.9  
B - = 2.70; 80.0 - 82.9  
C+ = 2.30; 77.0 - 79.9  
C = 2.00; 73.0 - 76.9  
C - = 1.70; 70.0 - 72.9  
D+ = 1.30; 7.0 - 69.9  
D = 1.00; 60.0 - 66.9  
F = 0.00; 0 – 59

**Homework:** Homework will be assigned regularly on MyMathLab

**Supplies:** Students are required to bring a notebook, pens/pencils and a scientific or graphing calculator to class each day.

**Sections Covered and Topics:** The following outlines the topics that will be covered as part of the course and a timeline for their completion. Please note that this is a tentative outline that is subject to change if needed as the semester progresses. A revised schedule of topics will be distributed if changes are required.

Week	Content
Week 1	Sets and their properties; Real numbers and their properties; Polynomials
Week 2	Rational Expressions; Rational Exponents; Radical Expressions
Week 3	Linear Equations & Quadratic Equations
Week 4	Inequalities; Absolute Value Equations and Inequalities
Week 5	Applications of linear, quadratic and absolute value equations and inequalities
Week 6	Rectangular Coordinates and Graphs
Week 7	Graphs of Basic Functions; Graphing Techniques
Week 8	Linear & Quadratic Functions
Week 9	Inverse Functions; Exponential Functions
Week 10	Applications of exponential functions
Week 11	Evaluating Logarithms; Change of Base Formula
Week 12	Logarithmic Equations
Week 13	Applications of logarithms
Week 14	Review all the topics covered all fall semester

**Course Evaluations:** Course evaluations will be completed electronically. Students will receive email notifications concerning the evaluations and must have access to their York College email accounts in order to complete them.

**Class Rules/Policies/Behavior:**

1. If late more than 15 mins that will count as late attendance, three late attendance will count as one absent. do not walk into class if you are late, **more then 30 mins** (in case of emergency talk to me),
2. Interrupting lesson (i.e. leaving in middle, talking, making noise, laughing, using **headphone**) will not allowed, if you still do, that will result deduction on final grade.
3. No usage of technology other than calculator.
4. Use restroom and eat food before coming into class and exams
5. Staying in the restroom for a long period of time during exam is not permitted unless there is a condition. If so, please come talk to me
6. Always **respect** one another and be kind

**Attendance:** Students are expected to attend each class session. No cuts are permitted. Students may be required at any time to account for undue irregularity in attendance by personal explanation to their instructor (and, for SEEK students, to their counselor).

Any student who has been excessively absent from a course and does not present adequate documentation to the instructor, may receive the grade of WU (unofficial withdrawal), which is computed as an F.

Students absent for illness for more than one week will be required to present to the instructor medical documentation of the illness, including an indication that they are well enough to return to their classes.

Students absent for more than one week for reasons other than illness will also be required to furnish documentation of reasons. Instructors will be asked to report excessive absences to the Office of the Registrar and to the Financial Aid Office.

**Academic Integrity:** Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion.

See: <https://www.york.cuny.edu/academics/academic-affairs/academic-integrity>

**INC Grades:** A student who, because of extenuating circumstances, has not taken the final examination and/or completed the work for the course, and has a passing average may, at the discretion of the instructor, receive an INC grade. The student, in consultation with the instructor, has up to 10 weeks in the subsequent semester to complete the work and have the grade resolved even if not registered in the subsequent semester. Grade changes resolving INC grades must be received by the Office of the Registrar by the last day of the tenth week of classes of the subsequent semester. (See Academic Calendar for exact due date.)

**Accommodations for Students with Disabilities:** CUNY York College is committed to providing access to programs and services for qualified students with disabilities. If you are a student with a disability and require accommodations to participate and complete requirements for this class, contact the Center for Students with Disabilities (Academic Core Building (AC), Room 1G02, 718-262-2191) for verification of eligibility and determination of specific accommodations.

### **Student support resources on campus**

The following offices and programs are available on campus to support students as needed. Please note that this is not an exhaustive list and other programs and offices do exist. When unsure you can conduct a search on the **York College website** located at [www.york.cuny.edu](http://www.york.cuny.edu) or access the

**York College Bulletin** (also searchable) online at  
<http://york.cuny.edu/search?SearchableText=york+bulletin>

The **Academic Achievement Center**, located in the library (AC-3H13), offers tutoring for students in various subjects including pre-calculus. Tutoring is free to students who schedule appointments with tutors at times that fit their schedule. If you are having difficulty in the course you are strongly advised to use this resource. The academic achievement center can also be reached by phone at (718) 262-2831 or via e-mail at [aac@york.cuny.edu](mailto:aac@york.cuny.edu).

The **Writing Center**, located in Room AC/1C18, offers assistance to students seeking help with research and writing skills. The office also contains computers and printers for student use. The center's phone number is (718) 262-2494. Students needing assistance with their English can stop by Room AC-3C08 to receive English as a Second Language (**ESL**) support. Students in the **SEEK** program can stop by the SEEK Office, AC-1C08, for assistance. For a complete listing of **Tutorial Services** at York college visit: [www.york.cuny.edu/student/tutoring/](http://www.york.cuny.edu/student/tutoring/)

The **Academic Advisement Center** located in Room AC 2C01 provides advisement related to general education and academic major requirements, the CUNY Proficiency exam (CPE), and the Committee of Academic Standards to all students. Students beyond the freshman year who are undecided as major, and non-matriculated students receive their principal advisement in the Center.

The **Office of Counseling** (AC-1G02) is committed to providing a broad range of high quality, innovative, and ethical services that address the psychological, educational, social, and developmental needs of York students. Services provided include: academic advisement and counseling, alcohol and drug prevention counseling, career counseling, crisis counseling, graduate school counseling and individual counseling. They can be reached at (718) 262-2272.

The **Academic Computing and Educational Technology Center** provides technical support for students in utilizing Blackboard, the CUNY portal, York e-mail and other programs. There is a help desk located in AC/2E03, one of the computer labs. The IT help desk can also be reached by phone at (718) 262-5300 or via e-mail at [helpdesk@york.cuny.edu](mailto:helpdesk@york.cuny.edu). Additionally the center runs technology workshops for students. More information can be found online at <http://york.cuny.edu/it/acet/academic-computing-and-educational-technology/>

**Computer Labs:** A large number of Internet-capable computers are assigned to College-wide computer labs, specialized departmental labs, learning centers and the Library. The Classroom Building (C201) houses a College-wide drop-in computer lab. There is also a computer laboratory complex in the Academic Core Building in AC-2E03. These labs are fully equipped with computers and networked laser printers.

The York College **Library** is located in AC-3G01. Students can use the library for research, to obtain books (also books on reserve), periodicals and other resources. The library runs workshops on information literacy, using the internet, using blackboard and other related topics. The library url is <http://york.cuny.edu/library>

**Additional Help:** Tutoring is available at the Mathematics Learning Center located in room 3E07.