

York College of the City University of New York
Math 104 (Section CD): College Algebra
Semester: Fall ; Year: 2018

Instructor: Shayan Woods

Course Times: Tuesday, Thursday 8:00 a.m. – 9:50 a.m.

E-mail: swoods3@york.cuny.edu

Office Hours: per request

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.

Credits: This is a 3-credit course.

Pre-requisites: Mathematics 102 (intermediate algebra) or passing the CUNY math placement exam.

Co-requisites: None

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

- (1) Understand sets and operations upon them.
- (2) Understand basic concepts and properties of numbers.
- (3) Combine, simplify and perform operations on polynomials.
- (4) 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.
- (6) 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.
- (8) 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
- (11) Apply essential mathematics literacy in quantitative and mathematical reasoning

Text Book: The following, required text will be used in class.
College Algebra (12th Edition)
Lial, Hornsby & Schneider
Published by: Addison-Wesley

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

Course Requirements

Homework: Homework will be assigned regularly.

Exams: There will be in-class exams each on specific topics covered in class. Additionally, the class will end with a cumulative, final exam.

Participation: The success of our class depends on the active participation of the students. As such, students are expected to attend class regularly and on time, complete all the required assignments and actively engage in activities. Attendance will be taken

at all class sessions.

Grading Policy: Homework and Quizzes 35%,
Participation and attendance 20%,
Tests 25%,
Final exam 20%.

Schedule of Topics

The following table 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.

Time	Topics of Study
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

Note: The syllabus is subject to change. Any changes made to this syllabus will be informed during class. This is not a writing enhanced or writing intensive course.

Online/Hybrid Course Statement:

This is not an online or hybrid course.

Important Policies

It is your responsibility as a student to familiarize yourself with the following important school policies.

Policy on Academic Integrity, Cheating and Plagiarism

York's Academic Integrity Policy and Procedures, developed to conform to the CUNY policy on Academic Integrity, outline College protocol for (1) promoting academic integrity at the College; and (2) dealing with violations of academic integrity. Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion. Academic dishonesty includes cheating and plagiarism. This policy will be strictly adhered to. Students can familiarize themselves with this policy by downloading a copy of it in pdf form at <http://york.cuny.edu/president/legal-compliance/legal-affairs/cuny-legal-policies-procedures/Academic-Integrity-Policy.pdf/view>

Policy on INC grades

York College's policy on INC grades will be adhered to. Students should familiarize themselves with the policy. Additionally York College's grading scale will be used to determine final course grades. All of York's grading policies can be found at: <http://york.cuny.edu/academics/policies/grading-policies>

Policy on accommodations for disabled students

York College's policy on accommodations for disabled students will be strictly adhered to. Students with documented disabilities are entitled to receive accommodation, including in some cases extra time on exams, tests, projects and assignments. The Office of Services for Students with Disabilities located within the Counseling Center in AC/1G02 provides a wealth of support and services including accommodations such as: extended testing time, large print text, adjustable tables, and computers services provided for by OSD. To better ascertain if you are eligible for services please stop by and speak with a disabilities specialist. The Office of Services for Students with can evaluate students. More information is also available online at <http://york.cuny.edu/student-development/ossed/>

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 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.

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.

For a complete listing of **Tutorial Services** at York college visit: 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. 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>