JOHN JAY COLLEGE OF CRIMINAL JUSTICE
The City University of New York
Department of Mathematics and Computer Science
Syllabus

Fall 2024 (08/28 – 12/21)

Title of Course and Section: MAT 105 College Algebra – Section 14	
Meeting Days/Time: M/W 8:00 am – 9:15 am	**Classroom**: Westport 108
Instructor: Kristine Bastone	**Email**: kbastone@jjay.cuny.edu
Office/Room No:	**Phone**:
Office (or Student Hours): Wednesday: 2:00 pm – 3:00 pm Friday: 11:00 am – 12:00 pm other times by appt	
Online Homework Learning System: https://aleks.com for assignment activities (problems, readings, and videos) **Class Code**: **Financial Aid Access Code**: **ALEKS Access Length**: 18 weeks (1 Semester) ~$90	
Brightspace: for announcements, course materials, and more	
Academic Support and Resource Centers: for academic support, computer lab, resource borrowing, tutoring, workshops, and more visit • **Math & Science Resource Center**: click here **Room**: 1.94NB; **Phone**: 646-557-4625; **Email**: msrc@jjay.cuny.edu • **SEEK Academic Support Center**: **Room**: 439HH; **Phone**: 212-393-6349; **Email**: seeklab@jjay.cuny.edu • **Free On-Demand Online Tutoring**: https://www.tutor.com/cunyjohnjay **Username:** *John Jay email address* / **Password**: *tutorstudent*	

Course Description: This course examines the basic assumptions underlying fundamental concepts of algebra and the role of mathematics in the analysis and interpretation of algebraic and graphical problems. Topics include a review of the fundamentals of algebra, equations and inequalities, functions and relations, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities, and miscellaneous topics. This course prepares students for the study of pre-calculus and further develops their mathematical maturity.

Learning Objectives: The main goal of this course is to foster student understanding of both analytic and graphical approaches to solutions of problems that can be expressed algebraically. Students will demonstrate the ability to:

- (L1) Classify algebraic equations in one variable as linear, rational, quadratic, polynomial, radical, and/or absolute value equations and execute appropriate techniques to solve such equations.
- (L2) Solve linear, compound, and absolute value inequalities in one variable and represent their solution sets using words, interval notation, and graphs.
- (L3) Utilize functions to represent quantitative relationships described in natural language and those described using algebraic notation and solve applied problems using functions.
- (L4) Construct graphs of algebraic relations including equations of circles, linear equations, quadratic functions, higher order polynomial functions, and functions described using transformations.
- (L5) Interpret graphs of algebraic relations using a variety of concepts including symmetry, monotonicity, extrema, end behavior, and asymptotes.
- (L6) Draw appropriate inferences about the graphs of higher degree polynomial functions using a variety of tools including the remainder theorem, the leading coefficient test, the rational zero theorem, the conjugate zero theorem, and the fundamental theorem of algebra.
- (L7) Solve applied problems using algebraic concepts and techniques.

Course Requirements

1. ALEKS – the student must register an account using both **CUNY email** and **EMPLID** then complete the Initial Knowledge by the first day of classes on ALEKS. The 18-week ALEKS access length must be purchased by the second week of classes.

2. Brightspace – the student must have access to the internet, including an active Brightspace account.

Textbook: Miller & Gerken, *College Algebra & Trigonometry*, 2nd Edition.
Students must set up an account with www.aleks.com and purchase access to its contents to complete assignment activities. As the electronic version of the textbook is included with the purchase, purchasing access through the ALEKS website is strongly recommended. The physical textbook is not required in this course. If the student prefers a physical textbook, it can be purchased at the online college bookstore or borrowed at the library or MSRC. **Make sure to receive a ALEKS Access Code with any physical textbook purchase.**
Note: For ACE or other student cohorts, please consult with an advisor for additional/required support.

The main objectives of the college mathematics textbook and digital content are threefold:

- Provide students with a clear and logical presentation of fundamental concepts that will prepare them for continued study in mathematics.
- Help students develop logical thinking and problem-solving skills that will benefit them in all aspects of life.
- Motivate students by demonstrating the significance of mathematics in their lives through practical applications.

Means of Assessment: Learning objectives will be demonstrated through the solution of selected problems on exams, homework, labs, and/or quizzes. These assessments will take place both in-person and online via the ALEKS platform.

Assignment Descriptions: ALEKS is an online homework system developed by educators for educators and students. It's a simple, intuitive program that offers helpful easy-to-use assignments and resources to help students learn and succeed in math. Online assignments will be submitted on ALEKS and may include homework, review material, and/or quizzes. Written assignments may be offered at the discretion of the instructor.

1. *Homework* topics on ALEKS will correspond to topics covered in each class session.
2. *Written assignments* are short answer-driven and tailored to the more difficult sections in the course so students can be better prepared for future topics and subsequent courses.
3. *Exams:* There will be three exams and a final exam. The final exam will be scheduled by the registrar.
4. *Reviews:* Homework problems will form the basis of reviews based on the recently assigned homework, intended to test the concepts and techniques covered in the previous classes.
5. *Knowledge Checks* measure the student's mastery of topics on ALEKS. They are adaptive, open-response, and no more than 30 questions. Each student will be required to complete the Initial Knowledge Check (IKC) and may be required to complete automatic Knowledge Checks and/or post-module Knowledge Checks. Automatic Knowledge Checks are triggered when a student learns 20 adaptive topics or spends 5 hours in learning mode, whichever occurs first.
6. *Weekly Time Goals*: Each student is required to engage with ALEKS for a minimum of 5 hours per week.
7. *Checkpoints:* Around the time of each exam, each student will be required to have completed a specified set of topics corresponding to the content covered on that exam.
8. *Partial Credit:* A floor of 60% on the Overall Pie Mastery in ALEKS will be the required minimum to get partial credit for assignments. Failing to achieve the minimum may result in a zero score for assignments.
9. *The ALEKS Guarantee (Time Goal)* warranty is a one-time offer, and students must retake the failed class within one year of their expired access. Students must have spent 60 hours or more in their ALEKS course. Applies to students with 11-week, 18-week, or 52-week access.

Student Success: An average student should expect to work on course material at least two to three hours outside of class for each hour spent in class – that is six to nine hours per week for fall/spring. The student is responsible for:

1. Their success in this class and for ensuring to have met the obligations in this syllabus.
2. Coming to class on time and having read the material to be discussed.
3. Participating fully during discussions, either voluntarily or when called upon.
4. Checking their Brightspace and John Jay email daily and complete their work on time.
5. Spending at least 5 hours a week engaged in working online and maintaining an ALEKS notebook.

Note: Students who read the text, turn in their work, and participate in class have an excellent chance at success. Students who take advantage of academic support and/or office hours, seeking help to understand the material or improve their quantitative reasoning, also have an excellent chance at success. If a student is unable to attend office hours because of work or another class, the instructor will make the time to meet the student if asked.

Academic Support (Tutoring and Workshops)
The Math & Science Resource Center (MSRC) is an Academic Support and Resource center for John Jay College undergraduate students enrolled in Math, Science, and Computer Science courses which is located at 1.94 NB. Services include tutoring, workshops, walk-in support, free resource borrowing, and a computer lab. During workshops, students will be given a brief overview of the topics covered (or soon to be covered) during lectures and be given problems to solve with the assistance of a peer tutor. Workshops are not to replace the regular lecture; they are to assist students in retaining the concepts and preparing for exams. Workshops schedules are provided by the MSRC. For questions about workshops, please contact the MSRC via email msrc@jjay.cuny.edu or phone 646-557-4635.

Recitations (Exam Reviews)
Recitations will occur in a room TBA during Community Time (1:40 PM – 2:55 PM) led by faculty. Recitations will only occur the week before and the week of scheduled testing. The sessions will review material that is scheduled to be on the exam. Recitations are not mandatory but can certainly help the student understand the material covered in class. For questions about recitations, please contact Alvin Estrada via email aestrada@jjay.cuny.edu or phone 212.237.1434.

Technology Support
Students who need a loaner laptop may request an appointment to pick up or have a laptop loaner mailed to them by emailing the DoIT Helpdesk at helpdesk@jjay.cuny.edu or by calling 212-237-8200.

Departmental Policies for Math Foundation and Quantitative Reasoning Courses

A. Attendance Policy
Students are expected to attend all class meetings as scheduled. Excessive absence may result in a failing grade for the course and may result in the loss of financial aid. In classes that meet once a week, more than two (2) absences are excessive. In classes that meet twice a week, more than four (4) absences are excessive. In classes that meet three times a week, more than six (6) absences are excessive.

B. Lateness Policy
Students are expected to arrive on time to class to avoid missing material and disrupting their colleagues. However, in the event the student is delayed, it is the student's responsibility to inform the instructor after class to be marked present (but late). Excessive lateness may result in a failing grade for the course and may result in the loss of financial aid. Students who have more than three (3) lateness' are excessive.

C. Classroom Policy
Students are expected to not use a cell phone or other prohibited electronic devices during class. The student is to come prepared for class and prepared to answer questions about the homework. Homework assignments are encouraged to be completed before class. Unruly and/or disruptive behavior may be subject to disciplinary action.

D. Participation Policy
Students are expected to participate fully in class discussions either voluntarily or when called upon to demonstrate significant critical thinking and analysis. Quantity and quality of participation may be factored into the grade.

E. Homework Policy
Homework in ALEKS is due each week. Late homework may come with a penalty. Students cannot receive help on Knowledge Checks or labs but may receive help on homework. ALEKS notebook checks may take place periodically.

F. MSRC Policy
All students are required to attend at least four sessions (workshops and/or tutoring) at the MSRC. 10% of the course grade will be determined by these visits. The student needs at least four sessions to earn the full 10%. Attending recitation sessions will be allowed.

G. Examination Policy
There will be no make-up exams except under special circumstances, which must be discussed with the instructor at least two days prior to the exam. If the student receives a grade below 60% on any exam (including the diagnostic test), the student is required to go to the MSRC (1.94 NB) or faculty-led exam recitation weekly until passing the next exam.

1. Use of communication devices, such as cell phones, are prohibited.
2. No student may remove an exam from the classroom under any circumstances.
3. Students may not leave the exam session unless they are done. Otherwise, points may be deducted.

4. Exams are timed; they must be completed within the stated time frame.
5. Students who arrive late for an exam will not receive extra time to complete the exam.
6. No credit will be given for questions left unanswered regardless of the reason.
7. Students are responsible for correctly completing all test answer sheets.
8. Graded exams will be returned to students 7-10 days from the day it was taken.

H. Departmental Final Exam Policy

If the student receives a grade below 40% on the final exam, the student will receive a failing grade, regardless of other scoring indicators. If the student receives a grade of 40% or higher on the final exam but fails in other aspects of the coursework and has a failing average, the student will receive a failing grade. 40% is not passing, but it is the cut off score for course exit qualification. The student's grade must still average out to be passing, assuming all minimum requirements are met.

I. Departmental Final Exam Retake Policy

If a student is passing the course as of the last day of classes and has spent a minimally required time in ALEKS but fails the course after taking the final exam, the student may have an opportunity to retake the final exam, at the instructor's discretion. If applicable, students will be required to attend the acceleration workshop to prepare them for the retake exam. The workshop typically occurs during the winter or summer intersession. Upon successful completion of workshop requirements, students are eligible for a grade change upon the recommendation of the instructor. Students who choose not to attend the acceleration workshop but are eligible will receive the grade initially earned. More information will be given towards the end of the semester.

College-wide Policies for Undergraduate Courses

A. Incomplete Grade Policy

An INC grade may be given only to those students who would pass the course if they were to satisfactorily complete course requirements. It is within the discretion of the faculty member as to whether to give the grade of INC. The INC grade should only be given in consultation with the student.

B. Extra Work During the Semester

Any extra credit coursework opportunities during the semester for a student to improve his or her grade must be made available to all students at the same time. Furthermore, there is no obligation on the part of any instructor to offer extra credit work in any course. The term "extra credit work" refers to optional work that may be assigned by the instructor to all students in addition to the required work for the course that all students must complete. It is distinguished from substitute assignments or substitute work that may be assigned by the instructor to individual students, such as make-up assignments to accommodate emergencies or to accommodate the special circumstances of individual students.

C. American with Disabilities Act (ADA) Policies:

Qualified students with disabilities will be provided reasonable academic accommodations if determined eligible by the Office of Accessibility Services (OAS). Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility from OAS which is located at L.66 NB (212-237-8031). It is the student's responsibility to initiate contact with the office and to follow the established procedures for having the accommodation notice sent to the instructor.

D. Wellness and Student Resources:

Students experiencing any personal, medical, financial, or familial distress, which may impede on their ability to fulfill the requirements of this course, are encouraged to visit the Wellness Center which is located at L.68 NB (212-237-8111). Available resources include Counseling Services, Health Services, Food Bank, and legal and tax aid through Single Stop.

E. Academic Integrity

Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion, as provided within the college. Students are responsible for upholding the academic integrity of the program by not participating either directly or indirectly in acts of cheating and by discouraging others from doing so. Students' responsibilities include, but are not limited to, the following.

No student shall:

1. Give or receive assistance or communicate in any way with another student while an examination is in progress.

2. Use unauthorized notes, books, or other materials during an examination.
3. Attempt to obtain or disseminate the content of any examination prior to its distribution by the proctor.
4. Procure or distribute answers to examinations in advance.

Student Course Evaluations
All John Jay College faculty are evaluated by students at the end of every fall, spring, and select summer semesters for each of their courses. Students can provide anonymous feedback on their experiences in the course.

"Student evaluations are important to our faculty; we take your comments seriously and value what you share with us about your learning experiences in the classroom. We use student feedback to strengthen our teaching practices and help us design courses that are strong, interesting, and in support of your goals as a lifelong learner. I become a better teacher each time I hear from my students and consider what they have to say. Please complete these questionnaires thoughtfully and completely – and don't forget to add your comments."

Grading Criteria

- Homework (20%)
- Other (10%)
- Exams (40%)
- Final Exam (30%)

As per CUNY Policy, students will be dropped from the course if they have never attended any of the classes since the beginning of the term/ session nor are otherwise active and participating in the course (e.g., by submitting assignments, attending a required study group, academic conference, or tutorial) or academically related activity.

Grade Explanation	Numerical Percentage	Value Equivalents
A Excellent	4.0	93.0 – 100.0
A –	3.7	90.0 – 92.9
B +	3.3	87.1 – 89.9
B Good	3.0	83.0 – 87.0
B –	2.7	80.0 – 82.9
C +	2.3	77.1 – 79.9
C Satisfactory	2.0	73.0 – 77.0
C –	1.7	70.0 – 72.9
D +	1.3	67.1 – 69.9
D Passing	1.0	63.0 – 67.0
D –	0.7	60.0 – 62.9
F Failure/ Unsuccessful	0.0	Below 60.0
P Pass	–	–

Academically related activities include, but are not limited to:
- Physically attending a class where there is an opportunity for direct interaction between instructor and student.
- Submitting an academic assignment.
- Taking an exam, an interactive tutorial or computer-assisted instruction.
- Attending a study group that is assigned by the school.
- Participating in an online discussion about academic matters.
- Initiating contact with a faculty member to ask a question about the academic subject studied in the course.

Note: Logging into an online class is not sufficient, by itself, to demonstrate academic participation by the student.

Please Note: 1) An F is not erased from a student's transcript when the course is taken again and passed.
2) WN - Withdrew Never Attended: Failure to attend class or register on ALEKS by Week 3.
3) WU - Withdrew Unofficially: see the Attendance Policy above.

MAT 105 College Algebra

Mo/We Fall 2024 Course Calendar

Textbook: Miller & Gerken, *College Algebra & Trigonometry*, 2nd Edition.

Day, Date	Topic, Reading, and Study	ALEKS
	Introduction to ALEKS	IKC
We, 8/28 We, 9/4 Mo, 9/9 We, 9/11 Mo, 9/16 We, 9/18 Mo, 9/23 We, 9/25 Mo, 9/30 Mo, 10/7 We, 10/9	Course Introduction, ALEKS Orientation, Diagnostic Test R.1, R.2, R.3 Review of Prerequisites R.4, R.5, R.6 Review of Prerequisites 1.1 Linear Equations and Rational Equations 1.3 Complex Numbers 1.4 Quadratic Equations 1.6 More Equations and Applications 1.7 Linear Inequalities, Compound and Absolute Value Inequalities 1.7 Linear Inequalities, Compound and Absolute Value Inequalities **Taking It Further and Review** **Exam #1**	Check Point 1
Tu, 10/15 We, 10/16 Mo, 10/21 Updates We, 10/23 Mo, 10/28 Mo, 10/28 We, 10/30 Mo, 11/4 We, 11/6 Mo, 11/11	2.1 The Rectangular Coordinate System 2.2 Circles 2.3 Functions and Relations 2.3 Analyzing Graphs of Functions and Piecewise-Defined Functions Chapter 1 Exam Review Chapter 2.3 Chapter 2.4 Linear Equations in Two Variables & Linear Functions Chapter 2.5 Applications of Linear Equations Practice Questions from 2.4 & 2.5 Chapter 2.7 Analyzing Graphs of Functions & Piecewise -Defined Functions Chapter 2.8 Algebra of Functions & Function Composition & **Exam Review** **Exam#2 All sections and covered objectives under Chapter 2**	Check Point 2
We, 11/13 Mo, 11/18 We, 11/20 Mo, 11/25 Mo, 12/2 We, 12/4	2.6 Transformations of Graphs 3.1 Quadratic Functions and Applications 3.2 Introduction to Polynomial Functions 3.3 Division of Polynomials and the Remainder and Factor Theorems 3.4 Zeros of Polynomials 3.5 Rational Function	Check Point 3
Mo, 12/9 We, 12/11 Mo, 12/16	**Exam#3** **Review for Final Exam** **Final Exam**	Overall Pie Mastery

Notes:

- See ALEKS for homework deadlines; the above deadlines are solely for pacing.
- **Taking It Further and Review** may include getting caught up, intertwining, review, or similar.
- Check the course website for recitation dates and location.
- See the Academic Calendar for dates and deadlines set by both the College and CUNY.

Class Notes: This class is listed for traditional in-person instruction. Students are expected to attend all class meetings as scheduled. Excessive absence may result in a failing grade for the course and may result in the loss of financial aid.