

Syllabus

Beginning Algebra with Geometry

Fall 2018

Course Title	Beginning Algebra with Geometry	
Credit Hours	4	
Length of Course	16 weeks	
Section	98 CD (section number: 35079)	
Prerequisites	Passing grade in Foundational Studies Math 3001, and Foundational Studies Math 3002, or Placement Test.	
Classes	Monday, Wednesday 12:00 PM–1:45 PM in Room 3150	
Instructor	Marta Hidegkuti e-mail: mhidegkuti@ccc.edu	Office: Room 3812
Office Hours	Monday, Wednesday 10:45 AM – 11:30 PM in Room 3812 Monday, Wednesday 2:00 PM – 2:30 PM in Room 3812 Tuesday, Thursday 12:30 PM – 1:30 PM in Room 3812 Friday 10:45 AM – 11:15 AM in Room 3812 or by appointment. Please note that some office hours might be cancelled or re-scheduled due to meetings.	

WEB SITES

All handouts and announcements will be available on the class's web site, at http://www.teaching.martahidegkuti.com/Math98/math98_fa18/Math98.html. Homework will be assigned on **MyOpenMath**. The use of MyOpenMath is mandatory but it is completely free. Students can log in at www.myopenmath.com and enroll using course ID **39159** and enrollment key **math98fall2018**.

TEXTBOOK

This course will not have a textbook. Most topics will be covered by handouts posted on the course's web site.

CALCULATOR

The use of a scientific calculator is strongly recommended. Students are expected to bring the calculator to class. The optimal calculator is **TI-30X II S**. The price of this model is between \$15 and \$20. Do NOT purchase a different calculator if it is significantly more expensive. Any calculator different from TI-30X II S has to be approved by the instructor first. If a calculator is able to compute symbolically, (f.e. that $\sqrt{12} = 2\sqrt{3}$), then it is not allowed to be used during quizzes and exams. **During quizzes and exams, students are not allowed to use a graphing calculator. Students are not allowed to use a cell phone as a calculator any time during class.**

ADDITIONAL RESOURCES

Open the pdf file of this syllabus to click on the links below.

[Free Algebra Textbook by Tyler Wallace](#)

[Video Lectures by Tyler Wallace](#)

[Previously Taught Courses](#) (check out my last Math 98 class if you want to study ahead!)

[Lecture Notes](#) (if you need a review of Pre-Algebra)

[Khan Academy](#)

Self-Study Courses on [MyOpenMath](#)

IMPORTANT DATES

First class: Monday, August 27

No Class, Holiday: Monday, September 3

Exam 1: Wednesday, September 26

Exam 2: Wednesday, October 17

Exam 3: Wednesday, November 14

Last Day for student Initiated Withdrawal: Saturday, Nov 17

Exam 4 (same as the Final Exam): Wednesday, December 14

End of Semester: Saturday, December 15

ATTENDANCE POLICY

Attendance is an essential part of the course. Regular attendance is expected of all students in the course. Attendance will be taken each class period. Students are expected to be on time and to attend the entire session. Please make every effort to arrive on time. If you are absent, you are responsible for all work and assignments covered in class that day.

No-Show Withdrawal (NSW)

Students who do not attend the first two class sessions will be withdrawn from the class by the instructor and issued an NSW.

Administrative Withdrawal (ADW)

Students will be administratively withdrawn at midterm (October 18) if at least two of the following apply:

1. Less than 70% of quizzes and tests up to the midterm (October 18) have been attempted.
2. Less than 70% of class sessions up to the midterm (October 18) have been attended.
3. Student missed 4 consecutive classes by October 18.

WITHDRAWAL FROM THE COURSE

Not attending classes does not constitute withdrawal from the course. After midterm, instructors can no longer drop students from the course. If students stop attending classes after the midterm, the instructor can only assign a grade of F. **If you no longer attend classes, it is essential that you stop by at the registrar's office and officially withdraw from the course to protect your average.** The last day for student initiated withdrawal is Saturday, November 17. Before withdrawing from the course, students are encouraged to consult the instructor.

GRADING POLICIES

All assessments (quizzes and exams) will be cumulative. Students who register late are responsible for all course work they missed due to their absence. Occasionally, extra credit assignments may be assigned. In all cases, **extra credit cannot count for more than 5%** of the course grade. Please retain all class-related material until you receive your final grade for the course. The final exams will not be distributed. They will be kept by the instructor for a calendar year after the course and then they will be destroyed.

Grading Scale

Grading of all assignments, quizzes, and exams will be based on the following scale.

90-100: A 80-89: B 70-79: C 60-69: D 0-59: F

Midterm Grade

The midterm grade will be the weighted average of the grades shown below with their weights.

Exam 1: 25% Exam 2: 30% Quizzes: 35% Homework: 10%

Before determining the grade given for quizzes, the lowest quiz score will be dropped.

Final Grade

The final grade will be the weighted average of the grades shown below with their weights.

Exam 1: 10% Exam 2: 15% Exam 3: 20% Exam 4: 20% Quizzes: 25% Homework: 10%

Before determining the grade given for quizzes, the lowest two quiz scores will be dropped.

MAKE-UP POLICY

Without exception, there will be no making up quizzes. Permission to make-up an exam is subject to the discretion of the instructor, and will be granted only in cases of emergency. If an absence is anticipated, the student should notify the instructor prior to the absence. Students need to present written documentation to make-up an exam. Without exception, students can only make up one exam in the course. All make-up exams will take place on Friday, December 8.

ACADEMIC INTEGRITY

The City Colleges of Chicago has no tolerance for violations of academic integrity. Cheating of any kind are serious violations of these standards and will result, minimally, in a grade of F. All course work will be checked for academic integrity. In this course, the first violation will result in an F for the assignment; the second violation will result in course failure. Make-ups and revisions are not available after an infraction of academic integrity. For further information, please refer to the [Academic and Student Policy](#). Students must work on their own to solve homework problems. To complete any assignment in the course with the help of software or website that solves mathematics problems constitutes cheating.

CLASS ROOM ETIQUETTE

General

At all times, please treat the instructor, other students, and their opinions with respect.

Writing on or otherwise marking tables and other CCC property is prohibited and will not be tolerated. Please use paper for computations or notes. If you use the chalk board, please refrain from touching it with your hand, as the oil from our skin tends to damage the board.

Eating and chewing gum are not allowed in the class rooms. Students are allowed to eat only in designated areas such as the cafeteria or student lounge. Writing or drawing on the tables or otherwise marking them are prohibited.

Avoid Distractions

Tardiness is a distraction to the learning environment. **Please make every effort to arrive on time for class.** Our class starts at 9:30. If you walk in at 9:30, you are late. At that time, students are expected to have arrived, seated, finished greeting each other, and are ready for the class to begin. If you are arriving late, please do not interrupt the class with an apology or greeting. Try to come in and join the class as quietly as you can. Students coming late are responsible for all content they have missed.

Before arriving to class, please **turn off all cell phones, pagers, and other loud devices.** The use of cell phone during class is not allowed. If you are in the habit of texting, facebooking, or otherwise entertain yourself using your cell phone, you will be asked to please put away the phone. Students are expected to pay attention to what is going on in the class, follow along, and ask and answer questions. Students do not need to raise their hand to speak. Lectures are intended to be a whole-group discussion. Please refrain from starting a parallel conversation.

Repeated noises such as sniffing, moaning or sighing are generally normal behavior but are very distracting during quizzes and exams. **Students are to refrain from making such noises during quizzes and exams.** If there is a medical reason making that impossible, the instructor must be notified in advance so that arrangements can be made for a separate room for that student.

Questions

When new material is presented, questions are welcome. It is essential that students understand the concept being covered. No questions are bad or silly!

At the beginning of class, students have a chance to ask questions about homework problems, review problems, and generally, old material. The more specific these questions are, the better. Class time is precious as there is a great deal of material to go through. If a question is as general as "Can you show again how to do this type of a problem?", two times is the limit. If a particular concept or problem was already presented in class as new material, and presented again at the beginning of class in its entirety, it will not be presented *during class* for the third time. Not only we do not have the class time for this, but it is also unfair to students who understood the problem the first time around. Such questions belong to office hours.

If you need an extensive review (for example, due to absence) of material presented in class, please see the instructor during office hours. Valuable class time can not be spent on assisting one or a few students to the detriment of the entire class. Office hours are designated to address these problems.

Office Hours

Arrive to office hours prepared. If you have missed a class, be sure to obtain and read all class-related material (handouts, text book section, and class notes). Have a list of specific questions. If you need help with a problem, bring your work on the problem with you – that will greatly expedite things. After your questions are answered, please leave so that the next student can enter. Please do not bring food to the instructor's office.

Contact

At all times, email is the fastest and most efficient method to contact the instructor. If you wish to contact the instructor about grades or attendance or other administrative issues via email, please use your CCC student account. FERPA (Family Educational Rights and Privacy Act) is a federal law that protects the privacy of student educational records: www.ed.gov/policy/gen/guid/fpco/ferpa/index.html. Faculty cannot reveal information about students, or discuss student records over the phone or unsecure e-mail. CCC student e-mail meets FERPA requirements.

If a student wants to receive class-related information via e-mail to an e-mail address different from the student ccc account, they must first complete a release form posted at <http://www.teaching.martahidegkuti.com/shared/resources/ferpa.pdf>. When e-mailing the instructor, please identify yourself and the class you are taking. Your instructor just met 105 new students. Please take the effort to use correct English and proper capitalization and punctuation in your e-mail correspondence. Communications such as "can u pls reset my hw" are unacceptable in an academic setting just as much as they would be unacceptable in a job.

ACADEMIC SUPPORT SERVICES

Math Center — Room 1176, Main Building

Provides an open space to do mathematics homework, emphasizing group study with roaming staff of tutors (adjunct instructors as well as student/peer tutors). One-on-one appointments are available for certain courses and circumstances. Computers, textbooks and calculators are available on site for student use.

Hours: Monday–Thursday: 9am-8pm

Friday and Saturday: 10am-3pm

Contact: 773-907-6832

Website: <http://www.ccc.edu/colleges/truman/departments/Pages/Math-Center.aspx>

Cary Tucker, Coordinator – etucker10@ccc.edu

Science Center

Provides an open study space for students to receive group tutoring or one-on-one tutoring for science classes. Tutors are available for both one-on-one appointments, or drop-in tutoring. In the space students have access to models, computers, textbooks, whiteboards, and other materials that help enhance the learning experience.

Hours: Monday–Thursday: 9am-8pm

Contact: 773-907-4354

Friday and Saturday: 10am-3pm

Maria Suarez, Science Center Coordinator

Location: Room 177, Larry McKeon Building

msuarez53@ccc.edu

Website: <http://www.ccc.edu/colleges/truman/departments/Pages/Science-Center.aspx>

Writing Center

We help with any writing assignment for any credit class (primarily English) as well as with resumes, cover letters, and personal statements. We offer 50-minute-long 1-on-1 appointments and can help with topics such as thesis statements, essay planning, and a variety of grammar issues. Students can make appointments on GradesFirst, by phone, or at our front desk. They can also walk-in if there is space, and they can work on our computers while they wait.

Hours: Monday – Thursday: 9am-8pm

Contact: 773-907-4387

Friday and Saturday: 10am-3pm

Toby Bengelsdorf, Writing Center Coordinator

Location: Room 1435, Main Building

tbengelsdorf@ccc.edu

Website: <http://www.ccc.edu/colleges/truman/departments/Pages/Writing-Center.aspx>

Reading Center

The Reading Center assists students in any class with reading, including understanding what they read, remembering what they read, thinking critically, and building vocabulary. Offers an open space with computers to study or do homework with tutoring support, and 50-minute-long 1-on-1 appointments. Students can make appointments through GradesFirst, at our front desk, by phone, or they can walk-in.

Hours: Monday–Thursday: 9am-8pm

Contact: 773-907-6827

Friday & Saturday: 10am-3pm

Jess Mahoney, Coordinator

Location: Room 1220B, Main Building

jmahoney6@ccc.edu

Website: <http://www.ccc.edu/colleges/truman/departments/Pages/Reading-Center.aspx>

Advancement Center

Offers one-on-one 50-minute appointments for tutoring in Adult Education: ESL Levels 1-8, GED Writing, GED Math (in English and Spanish), Citizenship, Constitution, and other needs of Adult Education students. Students can make appointments through GradesFirst, at our front desk, by phone, or they can walk-in. Also provides Conversation Groups for ESL Levels 1-8.

Hours: Monday: 10am-5pm

Location: Room 1440, Main Building

Tuesday: 10am-7pm

Contact: 773-907-4785

Wednesday: 10am-7pm

Laura Cheatham, Director of Academic Support Services –

Thursday: 10am-5pm

lcheatham2@ccc.edu

Friday: 10am-3pm

Website: <http://www.ccc.edu/colleges/truman/Pages/Search-Results.aspx?q=tutoring+center>

The Disability Access Center is located in Room 1435. The Center verifies needs pursuant to the American Disabilities Act (ADA), determines student academic accommodations, and issues accommodation letters. Registration is required at the start of each semester. (773) 907 - 4725, web site: <http://www.ccc.edu/colleges/truman/departments/Pages/Disability-Access-Center.aspx>

The Wellness Center is located in room 1946. Services include: Personal, individual counseling, support groups, stress and time management coaching, referrals to community resources, special support for victims of relationship violence and sexual assault includes one-on-one counseling; safety planning; and referrals to medical care, legal services, and emergency child care. Contact: (773) 907-4786 for an appointment or information. Web site: <http://www.ccc.edu/colleges/truman/departments/Pages/Wellness-Center.aspx>

GradesFirst is a student support system that will be used by faculty, advisors and tutors to help students achieve success in their classes. Use GradesFirst to schedule tutoring or advising appointments, or to see communications about your course progress generated by me or your other professors.

TIPS FOR SUCCESS

Make sure that you are enrolled into a class that you can handle. Many students fail a class because they are enrolled into the wrong course. A significant source of trouble passing Math 99 is poor placement. Despite a successful enrollment, despite a conversation with an advisor, despite a qualifying score on a placement test, many students are simply not ready for the course and need to take Math 98 or Math 99.

Do not take too much upon yourself. Enrolling into a 4 credit-hour class automatically means that you agree to study 8 hours per week outside of classroom. A common reason for failure is that students are taking one too many course.

Read the course syllabus! It is your contract with the instructor about how the course will go.

Attend every class and pay attention. Make sure you ask questions immediately if you don't understand what is going on. Don't wait until you get completely lost. Remember, when new concepts are presented, all questions are fair game and welcome. (Also, your instructor has a strong accent, so do not be shy.)

If students are sleep deprived, exhausted, sick, in pain, hungry, or intoxicated, they cannot learn. Showing up is not enough - you need to be mentally and physically ready to learn. **Make sure that you come to class well rested, sober, and ready to learn.**

Mathematics is not a spectator sport. **Efficient studying is problem solving without the aid of notes, books, or videos.** Reading notes, reading the textbook, or watching videos without practice will only lead to the illusion of preparedness. After reading and watching, practice solving problems without those aids.

Do not get behind! Mathematics is cumulative by nature. Yesterday's concepts are necessary for mastering today's material. If you miss a class, make sure you catch up with the course work immediately. Keep up with the homework. If you get behind, credit is not the only thing you will lose. More importantly, you will not be able to understand new material and therefore you can not get the full benefit of class meetings.

Format matters. Try to follow your instructor's suggestions with respect to format and philosophy.

Form or join study groups! Students who study together outside of class tend to do better than students who do not.

Get help! Your tuition (which was recently raised) includes the funding of the Math Center and Tutoring Center and your instructor's office hours. Make sure to visit these places at least once before you give up on them. Remember, you paid for those services.

Understand that you are part of learning community. Try not to completely withdraw or dominate the class by answering every question. You can not rewind a live lecture, so you need to pay attention. Put that phone away!

Avoid self-fulfilling prophecies such as "I am not good at math" or "I will never get this". This is a common misconception in the United States. Mathematics is just another skill, and we constantly work on it to improve. The more you apply yourself, the better you get at it. You might be surprised to find that you are actually good at it!

PROJECTED COURSE OUTLINE

Please note that the Course Outline is subject to change. To save class time, some quizzes might be cancelled. (Usually one or two each semester).

	Monday	Wednesday
week 1	August 27 – Class 1 Course Overview, The Language of Mathematics The Words And and Or	August 29 – Class 2 The Set of All Natural Numbers, Order of Operations
week 2	September 3 – NO CLASS Labor Day Holiday	September 5 – Class 3 Sets 1, Factors of a Number
week 3	September 10 – Class 4 The Set of All Integers, Order of Operations on Integers, Perimeter and Area of Rectangles	September 12 – Class 5 Square Root of an Integer, Division with Remainder Quiz 1
week 4	September 17 – Class 6 Fractions 1 (the definition), Algebraic Expressions and Statements, Perimeter and Area of Right Triangles, Set Operations	September 19 – Class 7 Fractions 2 (equivalent fractions), Introduction to Number Theory (prime factorization) Quiz 2
week 5	September 24 – Class 8 Fractions 3 (mixed numbers and improper fractions), Linear Equations 1 (One- and Two-Step Equations), Area of Triangles	September 26 – Class 9 Exam 1
week 6	October 1 – Class 10 Fractions 4 (adding and subtracting), Simplifying Algebraic Expressions	October 3 – Class 11 Fractions 5 (multiplying and dividing), LCM and GCD Quiz 3
week 7	October 8 – Class 12 The Rectangular Coordinate System, Linear Equations - 2 (Unknown on Both Sides)	October 10 – Class 13 Rules of Exponents Quiz 4
week 8	October 15 – Class 14 Multiplying Algebraic Expressions, Interval Notation	October 17 – Class 15 Exam 2
week 9	October 22 – Class 16 Graph of an Equation, The Zero-Product Rule	October 24 – Class 17 Integer Exponents Quiz 5
week 10	October 29 – Class 18 Graphing a Line - 1, Factoring 1 (GCF and -1)	October 31 – Class 19 More Linear Equations, Linear Inequalities Quiz 6
week 11	November 5 – Class 20 Factoring 2 (Diff. of Squares Theorem), Linear Equations - Part 3	November 7 – Class 21 Systems of Equations: Elimination and Substitution Quiz 7
week 12	November 12 – Class 22 Factoring 3: Trial and Error	November 14 – Class 23 Exam 3
week 13	November 19 – Class 24 Slope of a line, Graphing a Line Using Its Slope Rational Expressions	November 21 – Class 25 The Pythagorean Theorem Quiz 8
week 14	November 26 – Class 26 Factoring by Grouping,	November 28 – Class 27 Fractions and Decimals, The Real Number System Quiz 9
week 15	December 3 – Class 28 Factoring by the AC Method,	December 5 – Class 29 Digit Word Problems Quiz 10
week 16	December 10 – Class 30 Final Review, Square-Root of 2 is Irrational	December 12 – Class 31 Exam 4
	Saturday, December 15 - End of Semester	

Midterm Date: Wednesday, October 24

Last day for student initiated withdrawal: Saturday, November 17

COURSE INFORMATION

Catalogue Description: Algebra of real numbers, integer exponents, polynomial operations, factoring, rational and complex expressions, linear equations, word problems, quadratic equations and graphical and algebraic solutions of simultaneous linear equations. Writing assignments, as appropriate to the discipline, are part of the course.

Students the Course is Expected to Serve: This course is intended for students who lack credit in one year of high school algebra or desire a review of the subject matter.

Truman College General Education Goals:

Upon successful completion of this course, students will demonstrate the ability to

- think critically, abstractly, and logically.
- communicate effectively in written and oral forms.

Course Objectives:

Understand and make connections between real numbers and expressions.

Develop the algebraic skills necessary for problem solving.

Develop the ability to model linear relations, including the use of graphing techniques as tools, for the purpose of solving contextual problems.

Manipulate and apply literal equations for the purposes of solving contextual problems.

Writing and communicating the results of problem solving appropriately

Student Learning Outcomes:

Upon satisfactory completion of the course, students will be able to:

Algebra

Simplify expressions containing integer exponents.

Apply scientific notation to contextual (real-world) situations.

Simplify square roots for perfect squares.

Know and use order of operations.

Evaluate algebraic expressions.

Perform operations on and simplify polynomial expressions.

Factor polynomials.

Understand the order relations on the set of real numbers and illustrate them on the real number line.

Translate between verbal expressions and algebraic or numerical expressions.

Identify and represent numerical or algebraic expressions in equivalent forms.

Solve linear equations and inequalities.

Solve factorable quadratic equations.

Solve and evaluate literal equations (formulas) of the first degree.

Solve systems of linear equations in two variables graphically and algebraically.

Formulate and apply a linear equation or inequality to a contextual (real world) situation.

Determine the slope of a line.

Graph linear equations by plotting points and using slope.

Identify and represent linear relationships in equivalent forms (i.e., graphical, algebraic, tabular, and contextual).

Geometry

Apply formulas of area, perimeter and volume to basic 2- and 3-dimensional figures.

Set Theory

Find the intersection and union of sets.

Apply the concept of subset to mathematics problems.

Use the set theory symbols and concepts of number sets such as the set of all natural numbers, integers rational numbers, real numbers, and complex numbers.

Number Theory

List the factors of a natural number.

Determine whether a number is a prime or not

Find the prime factorization of an integer greater than 1.

Use the prime factorization to compute the greatest common factor (GCF) and least common multiple of numbers.

Apply the Fundamental Theorem of Arithmetics to divisibility questions.

Apply division with remainder to mathematics problems.

Logic

Apply the mathematical terms 'and' and 'or' within the context of a problem.

Have a pleasant, productive, and rewarding semester!

Marta Hidegkuti