Syllabus
Intermediate Algebra with Geometry
Math 99 TBLC – Fall 2018

Course Title	Intermediate Algebra with Geometry
Credit Hours	5
Length of Course	16 weeks
Prerequisites	Grade of C or better in Mathematics 98, or placement test, or consent of department chair.
Section	99 TBLC (section number: 35080)
Classes	Monday, Wednesday, Friday 9:00 AM – 10:30 AM 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/Math99/math99_fa18/Math99.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 **39068** and enrollment key **math99fa18**.

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 99 class if you want to study ahead!)
Lecture Notes (if you need a review of Beginning Algebra or Intermediate Algebra)
Khan Academy
Self-Study Courses on MyOpenMath

IMPORTANT DATES

First class: Monday, August 27	No Class, Holiday: Monday, September 3 and Friday, November 23
Exam 1: Friday, September 21	Last Day for Student Initiated Withdrawal: Saturday, November 17
Exam 2: Friday, October 19	Exam 4 (same as the Final Exam): Friday, December 14
Exam 3: Friday, November 16	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 5 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., Plagiarism and 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 sniffling, 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

The Math Center provides an open space to work on 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-9pm, Friday, Saturday: 11am-4pm
Location: Room 1176, Main Building
Website: http://www.ccc.edu/colleges/truman/departments/Pages/Math-Center.aspx
Contact: 773-907-6832 – Cary Tucker, Coordinator – etucker@ccc.edu

The Tutoring Center offers 1-on-1 50-minute appointments for tutoring in Accounting & Economics, French & Spanish, Humanities, History, Adult Education: ESL Levels 1-8, GED Writing, GED Math (in English & Spanish). Students can make appointments through GradesFirst, at our front desk, by phone, or they can walk-in.
        Hours: Monday–Thursday: 9am-7pm, Friday: 9am-5pm, Saturday: 9am-2pm
        Temporary Location*: Room 2300A, Main Building
Website: http://www.ccc.edu/colleges/truman/Pages/Search-Results.aspx?q=tutoring+center
Contact: 773-907-4785 – Raeann Caldwell, Tutoring Center Coordinator – rcaldwell1@ccc.edu

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 5 credit-hour class automatically means that you agree to study 10 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 this 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!

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**	**Friday**
week 1	**August 27 – Class 1** Course Overview, The words And and Or	**August 29 – Class 2** Introduction to Intermediate Algebra, The Set of all Natural Numbers	**August 31 – Class 3** Order of Operations on Natural Numbers, Perimeter and Area of Rectangles
week 2	September 3 – NO CLASS Labor Day Holiday	**September 5 – Class 4** Introduction to Set Theory, The Set of all Integers	**September 7 – Class 5** Order of Operations on Integers **Quiz 1**
week 3	**September 10 – Class 6** Perimeter and Area of Right Triangles, Square Roots, Factors of a Number	**September 12 – Class 7** Algebraic Expressions and Statements	**September 14 – Class 8** Set Operations **Quiz 2**
week 4	**September 17 – Class 9** Simplifying Algebraic Expressions, Division with Remainder	**September 19 – Class 10** Introduction to Number Theory, Linear Equations 1 (One- and Two-Step Equations)	**September 21 – Class 11** **Exam 1**
week 5	**September 24 – Class 12** Fractions 1 (the definition), Fractions 2 (equivalent fractions), Basic Percent Problems	**September 26 – Class 13** Rules of Exponents, The nth Root of a Number	**September 28 – Class 14** Linear Equations - 2 (with Unknown on Both Sides) **Quiz 3**
week 6	**October 1 – Class 15** Fractions 3 (mixed numbers and improper fractions), Fractions 4 (adding and subtracting), Multiplying Algebraic Expressions	**October 3 – Class 16** Fractions 5 (multiplying and dividing), More Linear Equations, Linear Inequalities	**October 5 - Class 17** LCM and GCD, The Rectangular Coordinate System **Quiz 4**
week 7	**October 8 – Class 18** Integer Exponents, Interval Notation, Graph of an Equation	**October 10 – Class 19** The Zero-Product Rule, Factoring A (GCF and Diff. of Squares Theorem)	**October 12 – Class 20** Graphing a Line - 1, Summation 1 **Quiz 5**
week 8	**October 15 – Class 21** Completing The Square - 1, and 2	**October 17 – Class 22** Fractions and Decimals, The Real Number System, Rational Exponents	**October 19 – Class 23** **Exam 2**
week 9	**October 22 – Class 24** Radical Expressions 1, Smallest Value of a Quadratic Expression	**October 24 – Class 25** Systems of Equations: Elimination and Substitution	**October 26 – Class 26** Rational Expressions 1 **Quiz 6**
week 10	**October 29 – Class 27** Completing the Square - 3, and 4, Graphing a Parabola - 1	**October 31 – Class 28** The Pythagorean Theorem, Compound Inequalities	**November 2 – Class 29** Combinatorics 1 **Quiz 7**
week 11	**November 5 – Class 30** The Quadratic Formula, Graphing a Parabola - 2	**November 7 – Class 31** Slope of a line, Graphing a Line Using Its Slope	**November 9 – Class 32** Similar Triangles **Quiz 8**
week 12	**November 12 – Class 33** Complex Numbers	**November 14 – Class 34** Writing Equations of Lines, Complex Fractions	**November 16 – Class 35** **Exam 3**
week 13	**November 19 – Class 36** Absolute Value Equations, Radical Expressions 2	**November 21 – Class 37** Rational Expressions 2 Digit Word Problems	November 23 – NO CLASS Thanksgiving Holiday
week 14	**November 26 – Class 38** Rational Equations	**November 28 – Class 39** Radical Equations	**November 30 – Class 40** Work Word Problems **Quiz 9**
week 15	**December 3 – Class 41** Factoring by the AC Method, Functions	**December 5 – Class 42** Systems of Linear Equations with Three Variables	**December 7 – Class 43** Basic Functions **Quiz 10**
week 16	**December 10 – Class 44** Square-Root of 2 is Irrational	**December 12 – Class 45** Final Review	**December 14 – Class 46** **Exam 4**
	Saturday, December 15 - End of Semester		

Midterm Date: Wednesday, October 24   Last day for student initiated withdrawal: Saturday, November 17

Catalogue Description
Algebraic topics include: rational exponents; scientific notation; radical and rational expressions; linear, quadratic, quadratic in form, rational, radical, and absolute value equations; compound linear inequalities; literal equations; systems of linear equations in two and three variables; systems of linear inequalities; and introduction to functions. Geometric topics include: perimeter; area; volume; Pythagorean Theorem; and similarity and proportions. Students should be exposed to graphing calculator technology and/or computer algebra systems. Writing assignments, as appropriate to the discipline, are part of the course.

Course Objectives
Develop the algebraic skills necessary for problem solving.
Develop the ability to model linear, quadratic, and other nonlinear relations, including the use of the graphing techniques and geometrical principles as tools, for the purpose of solving contextual (real-world) problems.
Manipulate and apply literal equations for the purposes of solving contextual (real-world) problems.
Writing and communicating the results of problem solving appropriately.
Use technology as one aide for the purposes of solving contextual (real-world) problems.

Truman College General Education Goal(s)
Upon successful completion of this course, students will demonstrate the ability to think critically, abstractly, and logically.

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

Algebra
Simplify expressions containing rational exponents.
Perform operations on and simplify radicals.
Perform operations on and simplify rational expressions.
Solve quadratic equations with real solutions, including the use of the quadratic formula.
Solve rational equations.
Solve absolute value equations.
Solve radical equations.
Solve compound linear inequalities.
Solve systems of linear inequalities in two variables.
Solve systems of linear equations in two and three variables.
Formulate and apply an equation, inequality or system of linear equations to a contextual situation.
Solve and evaluate literal equations, including nonlinear equations.
Formulate and apply nonlinear literal equations to a contextual (real-world) situation.
Graph linear and quadratic equations.
Determine equations of lines, including parallel and perpendicular lines.
Determine whether given relationships represented in multiple forms are functions.
Determine domain and range from the graph of a function.
Formulate and apply the concept of a function to a contextual (real-world) situation.
Interpret slope in a linear model as a rate of change.

Geometry
Apply formulas of perimeter, area, and volume to basic 2- and 3-dimensional figures in a contextual (real-world) situation.
Apply the Pythagorean Theorem to various contextual (real-world) situations.
Apply the concepts of similarity and congruency of triangles to a contextual (real-world) situation.

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 natural numbers, rational numbers, real numbers, and complex numbers.

Counting Theory (also called Combinatorics)
Apply systematic listing to counting problems.
Apply the fundamental counting principle to counting problems.
Apply permutations to counting problems.

Number Theory
List the factors of a natural number.
Determine whether a number is a prime or not
Find the prime factorization of a natural number 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.
Prove statements using contradiction.

Have a pleasant, productive, and rewarding semester!

Marta Hidegkuti