SYLLABUS

Intermediate Algebra with Geometry

Math 99 BC – Summer 2017

Course Title	Intermediate Algebra with Geometry
Credit Hours	5
Length of Course	8 weeks
Prerequisites	Grade of C or better in Mathematics 98, or placement test, or consent of department chair.
Section	99 BC (section number: 10872)
Classes	Monday, Wednesday, Thursday 9:30 AM – 12:35 PM in Room 3150
Instructor	Marta Hidegkuti e-mail: mhidegkuti@ccc.edu Office: Room 3812 phone: (773) 907-4084
Office Hours	Monday, Wednesday, Thursday 12:45 PM – 1:25 PM in Room 3812 or by appointment. 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_su17/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 **23170** and enrollment key **Math99summer2017**.

Textbook

Due to price consideration, students are welcome to use previous editions of the official textbook, which is the 4th edition of Introductory and Intermediate Algebra for College Students by Robert Blitzer, Pearson, 2013. Most topics will be also 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.**

Important Dates

First class: Wednesday, June 7
Exam 1: Thursday, June 22
Exam 2: Thursday, July 6
Last Day for Student Initiated Withdrawal: Wednesday, July 19
Exam 3 (same as the Final Exam): Thursday, July 27
End of Semester: Saturday, July 29

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 to class on time. If you are absent, you are responsible for all work and assignments covered in lecture 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 a NSW.

Administrative Withdrawal (ADW)

Students will be administratively withdrawn at midterm if at least two of the following apply:

1 Less than 70% of quizzes and tests up to the midterm (July 5) have been attempted.
2. Less than 70% of assignments (homework) up to the midterm (July 5) have been attempted.
2 Less than 70% of class sessions up to the midterm (July 5) have been attended.
3 Student missed 4 consecutive classes by July 5.

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 Wednesday, July 19. Before withdrawing from the course, students are encouraged to consult the instructor.

Grading Polcies

Students who register late are responsible for all course work they missed due to their absence. **All assessments (quizzes and exams) will be cumulative.** 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: 50% Quizzes: 45% Homework: 5%

Before determining the average score 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: 20% Exam 2: 25% Exam 3: 25% Quizzes: 25% Homework: 5%

Before determining the average score 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 his/her 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, July 21.

Academic Integrity

The CCC 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 the 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 student policy manual.

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 solve mathematics problems will be considered cheating in this course.

Class Room Etiquette

At all times, please treat the instructor, other students, and their opinions with respect. Before arriving to class, please **turn off all cell phones, pagers, and other loud devices**. **Please make every effort to arrive on time for class.** Please refrain from talking while the instructor is lecturing. 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.

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.

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.

Writing on or otherwise marking tables and other CCC property is prohibited. Please use paper for computations or notes.

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. 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.

Academic Support Services

The Math Center is located in Room 1776 and is a place where students can do their homework, study for tests, and participate in group study sessions to gain a better understanding of the course material. The Math Center also serves credit level math classes during specific block times during the week. Visit the Math Center for more information.

The Tutoring Center is located in Room 177 in the Larry McKeon Administrative Building. Students are encouraged to seek help and guidance during the course. Students have already paid for this service as part of tuition fees. Please note: in order to receive tutoring, students need to sign up in advance. (773) 907- 4785

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.

The Wellness Center is located in room 162 in the Larry McKeon Building. 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.

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.

Calendar of Events

Please note that the Calendar of Events is subject to change. Last revised: May 26, 2017.

	Monday	Wednesday	Thursday
Week 1	**No Class - June 5**	**Class 1 – June 7**	**Class 2 – June 8**
Week 2	**Class 3 – June 12** Quiz 1	**Class 4 – June 14**	**Class 5 – June 15** Quiz 2
Week 3	**Class 6 – June 19** Quiz 3	**Class 7 – June 21**	**Class 8 – June 22** Exam 1
Week 4	**Class 9 – June 26**	**Class 10 – June 27** Quiz 4	**Class 11 – June 29**
Week 5	**Class 12 – July 3** Quiz 5	**Class 13 – July 5**	**Class 14 – July 6** Exam 2
Week 6	**Class 15 – July 10**	**Class 16 – July 12** Quiz 6	**Class 17 – July 13**
Week 7	**Class 18 – July 17** Quiz 7	**Class 19 – July 19***	**Class 20 – July 20** Quiz 8
Week 8	**Class 21 – July 24** Quiz 9	**Class 22 – July 26**	**Class 23 – July 27** Exam 3
End of Semester: Saturday, July 29			

* Last day for student initiated withdrawal: Wednesday, July 19

Course Information

Course 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:

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 of the form |ax + b|=c.
Solve radical equations of the form: square root(ax + b) = c.
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.
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.

Projected Course Outline

Please note that the Course Outline is subject to change. Last revised: May 26, 2017
The class's web site will feature a Course Outline that is updated after each class.

Week 1

Course Information, The words AND and OR in Mathematics, Sets, The Set of all Natural Numbers, Factors of a Natural Number, Order of Operations (1.8), Evaluating Algebraic Expressions (1.1), Integers (1.3), Absolute Value of an Integer (1.3), Square Root of an Integer (10.1), Solutions of Equations (1.1), Division by Zero, Area and Perimeter of a Rectangle, Inequalities, Prime Factorization, The Greatest Common Factor (GCF) and Least Common Multiple (LCM) of two numbers, Fractions and Decimals

Week 2

Review of Fractions, the Real Numbers – Part 1, The Real Number System (1.4), Square-root of 2 is irrational, Area of Right Triangles, Two-Step Equations, Simplifying Algebraic Expressions (1.4), Area of Right Triangles, The Rectangular Coordinate System, Area of General Triangles, Linear Equations, More Linear Equations (2.1, 2.2, 2.3), Identities, Contradictions and Conditional Equations (2.3), Basic Percent Problems, Graph of an Equation, The Zero Product Rule (6.6), Factoring out the GCF or -1 (6.1), The Difference of Squares Theorem (6.4)

Week 3

Radical Expressions - Part 1 (10.1, 10.3), Exponents 1 (5.2), Graphing Straight Lines (3.1, 3.2), Area of a Parallelogram, Factoring by Completing the Square - Part 1, Part 2, (11.1), Linear Word Problems 1 (2.4, 2.5, 2.6), Solving Systems of Equations by Substitution and by Elimination (4.2, 4.3), Exam 1 Review and Exam 1

Week 4

Graphing a Parabola – Part 1 (11.3), Integer Exponents (5.7), Radical Expressions - Part 2 (10.4, 10.5), Factoring by Completing the Square – Part 3 and Part 4 (11.1), Rational Expressions 1 (7.1, 7.2), Integer Exponents (5.7), Linear Inequalities (2.7), Summation 1, The Pythagorean Theorem (11.1)

Week 5

The Quadratic Formula (11.1), Investment Problems (4.4), Graphing a Parabola 2 (11.3), Equations With Absolute Values (9.3), Compound Inequalities (9.2), Digit Problems, Exam 2 Review and Exam 2

Week 6

Complex Numbers (10.7), Rational Exponents (10.2), Mixture Problems (4.4), Basic Motion Problems, Writing Equations of Lines (3.4, 3.5), Functions and their Domains (8.1, 8.2), Factoring by Grouping (6.1)

Week 7

Motion Problems (4.4, 7.7), Rational Equations (7.6, 7.7), Radical Equations (10.6), Work Problems (7.7), Similar Triangles (7.7)

Week 8

Factoring the Sum and Difference of Cubes (5.3), Basic Functions and their Properties (8.2), Solving 3 by 3 System of Equations (4.5), Final Review and Final Exam (same as Exam 3)