

Syllabus for Fall 2018 MATH 1530 Section 83537

Cuyahoga Community College Business, Technology & Mathematics Eastern Campus

Course: MATH 1530 College Algebra

Instructor: Mike McCraith

Lecture Hours: 04 hours Laboratory Hours: 00 hours

Office: EMHC 210 Office Phone: 216-987-2320

Office Hours: MW 9:00 - 10:00 am, 11:40 am - 1:00 pm

TTH 9:00 - 10:00 am, 11:15 am - 1:00 pm

Email: mike.mccraith@tri-c.edu

Website: mathaccordingtomike.com

Text: Precalculus 5th Ed., Beecher, Penna, Bittinger

Graphing calculator is required - TI-83 or above is recommended

Section 83537: TTH 1:00 - 2:40 PM EMHC 117

Prerequisites

Math 1200/1270/1280, Math 0965, or placement exam.

Course Description

Topics include extensive function (linear, quadratic, polynomial, radical, roots, power, piece-wise, exponential, logarithmic) representation including verbal, numeric, graphic, and algebraic, identifying properties of the different function types, transformation of functions, solve polynomial, rational, absolute value, exponential and logarithmic equations. Solve quadratic, polynomial, and rational inequalities in one variable. Determine and graph conic sections, solve non-linear systems of equations and inequalities and solve systems of equations using matrices, arithmetic and geometric sequences and series. Includes applications and activities to build skills in problem solving.

Class Schedule

For the first five minutes of class (on non-test days), I will go over exercises that the student could not complete. The person who asks a question may be asked what they didn't like about the problem or what they didn't understand. The test will be given at the beginning of the class period and you will have the entire class time to take the exam.

Attendance

It is your responsibility to attend every class. The more classes you attend, you increase the chance of a better grade. **You are also responsible to find out what you missed and your responsibility to contact a classmate for any notes you have missed.** Students are expected to arrive on time and stay for the entire class.

According to the Ohio Department of Higher Education, one (1) semester hour of college credit will be awarded for each lecture hour. Students will be expected to work on out-of-class assignments on a regular basis which, over the length of the course, would normally average two hours of out-of-class study for each hour of formal class activity. Credit is also awarded for other hours such as directed practice, practicum, cooperative work experience, and field experience. The number of hours required to receive credit is listed under Other Hours on the syllabus. The number of credit hours for lecture, lab and other hours are listed at the beginning of the syllabus. Make sure you can prioritize your time accordingly. Proper planning, prioritization and dedication will enhance your success in this course.

Homework, Quizzes, Project, and PowerPoint Package

Homework is posted on MyMathLab: <http://www.mymathlab.com>. The Course ID is **mccraith67493**. I highly recommend printing out the homework, selecting "Save", doing the problems on paper, and then logging back in to submit answers. Each section is worth 5 points. You'll have one week to do every homework assignment.

Quizzes are also posted on the MyMathLab site. Quizzes cover the material on the exam, are worth 15 points, and you have only 3 hours to complete the quiz with 1 attempt. Make sure you stay organized as you do your homework and quizzes to ensure full credit is received. Do not start the quiz until you are ready to do so.

You may work on the project with only people from our class, by yourself, or you may ask me for help. **You may not seek outside help including, but not limited to, tutors, friends, family, or the internet.** Due dates on the project will be announced. More information will be given as the course progresses.

All of the planned class examples have been recorded and the videos are on YouTube and also on my website. Corresponding to each section of the text is a PowerPoint slide with the examples already typed. You can find these slides on Blackboard. You will be required to come to class with these slides and write the answer to the exercise as we work it out together in class. They are worth 10 points per chapter. **Whatever sections the test covers is what you will need to turn in for the PowerPoint Package on the day of the test. Do not come late on test day. Any material submitted after the class has begun will not be accepted for credit.**

Grade Replacement Policy

If all homework assignments have a score of 70% or higher, then the lowest test score is **replaced** by the Final if the Final is higher. Otherwise, all scores are kept. Ensure that every homework assignment is at least 70% prior to the due date. If, for any reason, at least one section is below 70%, the Policy is lost and cannot be regained.

Partial Credit Policy

While grading tests, partial credit will be given based on the amount of work shown and how correct the work is. For example, a student who gets their answer straight from the calculator without showing any work will receive very few points—even if the answer is correct. Whereas a student who does the correct work but somehow arrives at an incorrect answer will receive the majority of the credit. Arithmetic mistakes warrant only a few points lost; however, conceptual errors will not earn many points of partial credit. I understand that there are times where you must use the calculator to get the answer, and thus in those cases, the policy does not apply.

Tests

Tests will generally cover one to two chapters. Please make a note of due dates and plan accordingly. A 200-point Final will be given at the end of the semester. Tests may consist of homework-style problems, true/false, and short answer. **The test must be done in pencil. A test not done in pencil or one that is done in poor handwriting will not be graded. All steps must be shown on the test or full credit will not be given (in Math, how you get the answer is sometimes more important than the actual answer.)** A test will not be given to a student if the student arrives on the day of the test after the first test has been handed in. Be sure to get to the class early on test days.

It is **highly** recommended that you view the previous tests using the Web site. On the Website, click on "Classes" and then on "Math 1530". Take those tests and use the answer keys to check your work.

Make-ups/Late Material

There will be no make-up exams offered. No late assignments will be accepted for any reason. Be sure to have all materials on the day and by the time that they are required. Materials turned in after the due date will not be graded. Extra time will NOT be given for any reason.

Cheating Policy

Cheating will not be tolerated by the instructor. It includes having any extra materials not approved by the instructor. Cheating also includes having these materials in your possession—whether or not you are using them. For instance, if you borrow a calculator, you are obligated to make sure there are no formulas in the calculator. Make sure to use common sense while test taking. Do not, for any reason, look over at another student. Otherwise, you will be considered to be cheating.

Misuse of external resources (including, but not limited to, the back of the book, other textbooks, another student's work, the internet, and the solution manual) by submitting work that is not their own also constitutes cheating. For example, if a student copies the answers from the back of the book and turns that in as their homework, it is considered cheating. **If you do not understand how to get the answer, do not simply copy down the work from an external source.** Instead, ask me to help you with the problem. Copying down from an external source does not demonstrate mastery of the material and will not help you on the exam and on the final. I would rather you leave a problem blank than write the copied answer from an external source. It is your responsibility to make sure you have all of your questions answered before the assignment is due.

Never give me or the testing center the impression that you are cheating. Never look over at other student's work and never talk during the quiz or test for any reason.

On the first instance of cheating, the grade received for that entire assignment/exam will be a zero, the student will no longer qualify for the Grade Replacement Policy, and the student's overall grade will be dropped by one letter. For the second instance of cheating, automatic failure in the course will result and a Student Conduct Hearing will take place. See the Student Handbook for a complete definition of cheating and other information.

Cell Phone Policy

Tests are already stressful parts of any math class, but, a disruption, like a cell phone, can make the entire experience worse. Due to this, if any disruption is caused during a test from a cell phone, the student with the cell phone will be required to write a paper. See below for information on the paper. If the paper is not turned in within one week, the student will receive a zero on the test.

The paper should focus on disruptions during a test caused from cell phones. You may also briefly discuss other forms of disruptions. End the paper with a summary of what you have learned in this process. The paper is to be three pages in length, double-spaced, with an additional page of references. You must site two references using the MLA format.

If after all of this and the same student allows their cell phone to disrupt another test, the student will be asked to leave the class and will receive a zero on their test.

A disruptive cell phone includes one that rings and one that is on vibrate. I completely understand that life occurs outside of the classroom. If it is a test day and you are expecting an important call, simply place the cell phone on your desk and put it on silent. The cell phone will still light up to let you know there's an incoming call or text. If that occurs, turn your test over and quietly leave the room to answer the call. That way, you will minimize the disruption and it should not break the concentration of fellow students.

During class, cell phones are considered to be participating in disruptive behavior and will not be tolerated in class. Cell phones may not be used on quizzes and tests. They also may not be used during class to take photos of the board. They must be turned off or on silent- **not vibrate.** Anyone using one to text message during any class period will be asked to leave for that day.

Instructor's Expectations

Please be courteous to all members of the class. Actions deemed rude such as disruptive behavior, including talking, whispering, tardiness, early departure or insulting or disrespectful comments or actions towards anyone will not be tolerated. Math is a difficult subject for most people, so I strongly encourage you to ask any questions you may have (without having to worry.)

Come to class prepared for the day's lesson by reading ahead. This is the best way to take more out of the day's lecture. Be sure homework is done in a timely manner and that you adequately schedule your time to include homework and studying. Studying only a "couple hours" for a test is never enough. Be sure to start to study for a test at least 2 days before the test. That way, you leave enough time for the material to be understood and to ask any questions. Do not wait until the last minute to get the help you might need! If you do not ask questions when you have them, then you are shorting yourself of an opportunity to learn the material. I will answer all questions in a respectful, patient, and timely manner.

As for a hint: be sure not to only write down what I write down on the board, but also what I say *in between* the steps. This will greatly help you as you study. Also, if you need to audio record the class, feel free to do so. Believe it or not, this could help you fill in the gaps to your notes. Please, no children in the class.

When corresponding through email, refrain from using "internet speak". Any such email will be returned.

Grading

Grades will be based on the following: **Final grades are based on:**

About Me †	10
Weekly Planner †	10
Syllabus Quiz	10
Quizzes	120
Homework	180
Project	30
PowerPoint Package †	40
4 Exams	400
Final	200
TOTAL †	1000

Percent	Points	Final Grade
90 - 100	900 - 1000	A*
80 - 89	800 - 899	B*
70 - 79	700 - 799	C*
60 - 69	600 - 699	D
0 - 59	Below 600	F

*Passing Grade starting Summer 2005

† Total point value subject to change due to time

‡ Graded on an all-or-nothing basis

College Calendar

Date	Calendar Description	Date	Calendar Description
August 27, 2018	Fall Semester (16 Weeks) Full Term Begins	November 16, 2018	Last Day to Withdraw from Full Term (16 Weeks) Course with a "W" Grade
September 3, 2018	Labor Day - College Closed - No Classes Scheduled	November 22-25, 2018	Thanksgiving Recess - College Closed - No Classes Scheduled
September 10, 2018	Last Day to Withdraw from Full Term (16 Weeks) with NO RECORD	December 10-18, 2018	Final Exam Week - Full Term
October 26, 2018	Academic Progress Reporting for Full Term (16 Weeks) Due	December 16, 2018	Fall Semester Full Term Ends
November 11, 2018	Veteran's Day - College Closed - No Classes Scheduled	December 18, 2018	Final Grades Due
November 12, 2018	Veteran's Day Observed- College Closed - No Classes Scheduled		

Assistance

Tutoring is available in the Learning Center (ESS 1202) on a free, walk-in basis. Free online tutoring is available with a link under Student Services in My Tri-C Space through eTutoring and Smarthinking.

Disabilities

Students with disabilities at Cuyahoga Community College are expected to take an assertive role in communicating with faculty and staff members about their need for reasonable accommodation. If you need course adaptations or accommodations because of a disability, you should contact the ACCESS Office located in ESS 1213-1216. The ACCESS office phone number is 216-987-2052.

Incomplete Grades

The grade "I" is only given if a student meets **both** of the following conditions:

- The student has a **passing status** in the class and has completed at least 70% of the course work, AND
- The student is unable to complete the rest of the required course work due to circumstances *judged by me* to be beyond his/her control.

A notation of "I" indicates that you must complete the course requirements within five (5) weeks of the next semester (summer excluded) or the "I" will be automatically changed to an "F". See Student Handbook for more information.

Extra Information

Office hours! Use them to your advantage. Let no question go unasked. **Be sure to have your questions prepared in advance to maximize efficiency during office hours.** There is not time to redo the lecture during office hours so come prepared to ensure all students are given a chance for help.

I am also available for online tutoring using Skype. Use my Tri-C email address to find me on Skype. **If you wish to meet with me, please give me advance notice by emailing me at my Tri-C address.** I do not log on unless I know someone is there.

Things you ABSOLUTELY NEED TO KNOW from Math 0965/1200/1270/1280 (Intermediate Algebra)

- Algebraic expressions.
- Demonstrate an understanding of and simplify exponential and radical expressions.
- Solve equations and inequalities in one variable of degree greater than or equal to one.
- Find and sketch the graph of the solution set for linear equations and inequalities.
- Identify graphs and equations of the parabola, circle, ellipse, and hyperbola; graph parabolas and circles.
- Evaluate functions and sketch their graphs.
- Use the relationship between exponential and logarithmic functions to solve equations and applications.
- Find the solution set for systems of linear and quadratic equations algebraically and graphically.
- Sketch the graph of the solution set of systems of linear inequalities.
- Explain ways that the calculator/computer may be used to solve algebraic problems.

Objectives for this course

Upon completion of MATH 1530 College Algebra, the student should be able to:

- Represent functions verbally, numerically, graphically and algebraically.
- Solve Equations.
- Solve Inequalities.
- Define, Determine, and Graph Conic Sections and solve Non-linear Systems of Equations and Inequalities.
- Solve systems of linear equations using matrices.
- Recognize and differentiate arithmetic and geometric sequences and series, and determine specified terms and their sums if they exist.

For a more detailed Objective list, please visit <http://www.tri-c.edu/student-resources/curriculum/>.

Academic Credit

Regular class attendance is expected. Tri-C is required by law to verify the enrollment of students who participate in federal Title IV student aid programs and/or who receive educational benefits through other funding sources. Eligibility for federal student financial aid is, in part, based on your enrollment status.

Students who do not attend classes for the entire term are required to withdraw from the course(s). Additionally, students who withdraw from a course or stop attending class without officially withdrawing may be required to return all or a portion of the financial aid based on the date of last attendance. Students who do not attend the full session are responsible for withdrawing from the course(s).

Tri-C is responsible for identifying students who have not attended a course, before financial aid funds can be applied to students' accounts. Therefore, attendance will be recorded in the following ways:

For online courses, students are required to login in at least two (2) times per week and submit one (1) assignment per week for the first two (2) weeks of the semester, or equivalent to the 15th day of the term. Students who have not met all attendance requirements for an online course, as described herein, within the first two weeks of the semester, or equivalent, will be considered not attending and will be reported for non-attendance and dropped from the course.

At the conclusion of the first two weeks of a semester, or equivalent, instructors report any registered students who have "Never Attended" a course. Those students will be administratively withdrawn from that course. However, after the time period in the previous paragraphs, if a student stops attending a class, wants or needs to withdraw, for any reason, it is the student's responsibility to take action to withdraw from the course. Students must complete and submit the appropriate Tri-C form by the established withdrawal deadline.

Tri-C is required to ensure that students receive financial aid only for courses that they attend and complete. Students reported for not attending at least one of their registered courses will have all financial aid funds held until confirmation of attendance in registered courses has been verified. Students who fail to complete at least one course may be required to repay all or a portion of their federal financial aid funds and may be ineligible to receive future federal financial aid awards. Students who withdraw from classes prior to completing more than 60 percent of their enrolled class time may be subject to the required federal refund policy.

If illness or emergency should necessitate a brief absence from class, students should confer with instructors upon their return. Students having problems with class work because of a prolonged absence should confer with the instructor or a counselor.

Important Dates

Sections	Availability	Sections	Availability
1.1 - 1.4	Tues, Aug 28 - Tues, Sept 4	5.3 - 5.5	Tues, Oct 16 - Tues, Oct 23
2.1 - 2.5	Tues, Sept 4 - Tues, Sept 11	5.6, 9.2 - 9.3	Tues, Oct 23 - Tues, Oct 30
3.1 - 3.2	Tues, Sept 11 - Tues, Sept 18	9.8, 10.1	Tues, Oct 30- Tues, Nov 6
3.3 - 3.5	Tues, Sept 18 - Tues, Sept 25	10.2 - 10.3	Tues, Nov 6 - Tues, Nov 13
4.1 - 4.3	Tues, Sept 25 - Tues, Oct 2	10.4, 11.1	Tues, Nov 13 - Tues, Nov 20
4.4 - 4.6	Tues, Oct 2 - Tues, Oct 9	11.2	Tues, Nov 20 - Tues, Nov 27
5.1 - 5.2	Tues, Oct 9 - Tues, Oct 16	11.3	Tues, Nov 27 - Tues, Dec 4

Quiz Chapter 1: Tues, Aug 28 - Thurs, Sept 13

Quiz Chapter 3: Tues, Sept 11 - Thurs, Oct 11

Quiz Chapter 5: Tues, Oct 9 - Thurs, Nov 8

Quiz Chapter 10: Tues, Oct 30 - Tues, Dec 4

Quiz Chapter 2: Tues, Sept 4 - Thurs, Sept 13

Quiz Chapter 4: Tues, Sept 25, - Thurs, Oct 11

Quiz Chapter 9: Tues, Oct 23 - Thurs, Nov 8

Quiz Chapter 11: Tues, Nov 13 - Tues, Dec 4

All items due on the second day listed at 11:59 pm

Math 1530 Schedule

Day of	Sections Covered
August 28, 30	Introduction 1.1 Introduction to Graphing 1.2 Functions and Graphs 1.3 Linear Functions, Slopes, and Applications 1.4 Equations of Lines and Modeling
September 4, 6	2.1 Increasing, Decreasing, and Piecewise Functions; Applications 2.2 The Algebra of Functions 2.3 The Composition of Functions 2.4 Symmetry 2.5 Transformations
September 11, 13	3.1 The Complex Numbers 3.2 Quadratic Equations, Functions, and Models Test 1: Chapters 1 and 2
September 18, 20	3.3 Analyzing Graphs of Quadratic Functions 3.4 Solving Rational and Radical Equations 3.5 Solving Equations and Inequalities with Absolute Value
September 25, 27	4.1 Polynomial Functions and Models 4.2 Graphing Polynomial Functions 4.3 Polynomial Division; The Remainder and Factor Theorems
October 2, 4	4.4 Theorems about Zeros of Polynomial Functions 4.5 Rational Functions 4.6 Polynomial and Rational Inequalities
October 9, 11	5.1 Inverse Functions 5.2 Exponential Functions and Graphs Test 2: Chapters 3 and 4
October 16, 18	5.3 Logarithmic Functions and Graphs 5.4 Properties of Logarithmic Functions 5.5 Solving Exponential and Logarithmic Equations
October 23, 25	5.6 Applications and Models: Growth and Decay, and Compound Interest 9.2 Systems of Equations in Three Variables 9.3 Matrices and Systems of Equations
October 30, November 1	9.8 Partial Fractions 10.1 The Parabola
November 6, 8	10.2 The Circle and the Eclipse 10.3 The Hyperbola Test 3: Chapters 5 and 9
November 13, 15	10.4 Nonlinear Systems of Equations and Inequalities 11.1 Sequences and Series
November 20, 22	11.2 Arithmetic Sequences and Series November 22—No Class (Happy Thanksgiving!)
November 27, 29	11.3 Geometric Sequences and Series
December 4, 6	Test 4: Chapters 10 and 11 Review
<u>Tuesday, December 11</u>	Final 1:45 pm - 3:45 pm Same Classroom!