

# SYLLABUS FOR FALL 2020 MATH 1530 SECTION 82748

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 (using Zoom): MW 12:00 - 2:30 pm

TTH 4:00 - 6:30 pm

Email: [mike.mccraith@tri-c.edu](mailto:mike.mccraith@tri-c.edu)

Website: [mathaccordingtomike.com](http://mathaccordingtomike.com)

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

Graphing calculator is required - TI-83/83+, TI-84/84+ is recommended

## Prerequisites

MATH-0965 Intermediate Algebra, or appropriate score on Math Placement Test, or departmental approval: equivalent coursework.

## 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.

## Course Schedule

To be successful in the class, you must be determined and able to stay on task. Read the section, watch the corresponding YouTube videos, skim the section, and then try the homework. Do one section at a time! If there's time between when you finish the homework and the test due date, print out the practice tests (see Tests) and compare your work to the answer key. Do not wait until the last minute to start the material. Info on which YouTube video to watch is posted in the Math 1530 Schedule at the end of the syllabus.

## Attendance

As if this were a traditional class, you need to have the self-discipline to work on math every day to increase your chance of success. Try to do some work for this class every day. Even if you only have 20 minutes, it is better than not spending any time at all.

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 based in part on 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 their 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. There are four tasks required to be marked attended for this course. See the Welcome email to learn more. Students who have not met all attendance requirements will be considered not attending.

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 or 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 coursework due to a prolonged absence should confer with the instructor or a counselor.

## Learning Outcomes Assessment

Occasionally, in addition to submitting assignments to their instructors for evaluation and a grade, students will also be asked to submit completed assignments, called 'artifacts,' for assessment of course and program outcomes and the College's Essential Learning Outcomes (ELOs). The artifacts will be submitted in Blackboard or a similar technology. The level of mastery of the outcome demonstrated by the artifact DOES NOT affect the student's grade or academic record in any way. However, some instructors require that students submit their artifact before receiving their final grade. Some artifacts will be randomly selected for assessment, which will help determine improvements and support needed to further student success. If you have any questions, please feel free to speak with your instructor or contact the Learning Outcomes Assessment office.

## Homework and Quizzes

Homework and quizzes are posted on MyMathLab: <http://www.mymathlab.com>. The Course ID needed is [mccraith07057](http://www.mymathlab.com). I highly recommend printing out the homework, selecting "Save", doing the problems on paper, and then logging back in to submit answers. Homework is graded without partial credit. Each section is worth 3 points. You will have one week to complete that week's homework assignment. See the last page for availability dates for the homework.

Quizzes cover the entire chapter, are worth 10 points, and you have only 2 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 for it.

Homework and quizzes will have due dates where a student can receive full credit. Any homework turned in after that due date will receive a penalty of 30% (only the parts answered after the due date.) It's advisable to turn in everything by the due date to maximize your points as points in this course are very hard to come by. Note that this late policy only applies to homework and not to quizzes. Quizzes cannot be turned in late. The late date to turn in all homework is Wednesday, December 9 at 11:59 pm.

## Tests

This course will have only a midterm and a Final. The midterm will be worth 150 points and the comprehensive Final will be worth 200 points. These tests will be paper/pencil. The day for the midterm will be Wednesday, October 7, 2020 and the day for the Final will be Wednesday, December 9, 2020. Both days, you will have two options: the test at either 10:00 am or 6:00 pm. **You will need to make an appointment to register for the exam.** To make an appointment, simply email me the time you will want to take your test. **If you do not make an appointment, you will not be given a test. The deadline to make an appointment for the midterm is Friday, October 2, 2020 at 11:59 pm and the deadline to make an appointment for the Final is Friday, December 4, 2020 at 11:59 pm.**

While taking the tests, no other materials, besides blank paper, calculator and formula sheet, may be used.

### BEFORE TAKING THE TEST:

- 1) **Make a Zoom account by going to <https://zoom.us/>.** You will need to download Zoom for your computer or for your phone to use during the exams. Be sure to test it out by making a visit during office hours (see first page) or making an appointment before the day of the test.
- 2) **If you do not have a scanner, download a scanning app for your smartphone such as Microsoft Office Lens or Evernote/Evernote Scannable. One of your first assignments (Weekly Planner) is also going to be a test to make sure you can download and submit through Blackboard. If you have an issue, please let me know ASAP!**

Tests will appear on Blackboard at your preselected time. You are to perform the following steps:

- 1) Log into the Zoom meeting <https://us02web.zoom.us/j/5387886450> (you need the Passcode 082420) **10 minutes before the exam** with your webcam on. If you do not have a webcam, you'll need to download the Zoom app for your smartphone. Make sure your phone is charged throughout the exam. If there is a disruption during the exam, **email me immediately.** I will be proctoring the test as you take it.
- 2) During the 10 minutes prior to the exam, I will be checking IDs. Make sure you have a photo ID ready.
- 3) Log into Blackboard and click on Tests in the menu on the left. Print out the test and do the work on the paper (preferred). If you cannot print, work on separate sheets of paper, write the problem number and show the work. You do not have to rewrite the actual problem. If you choose the latter, make sure that you do not skip around and the problems are done sequentially. Do not put more than on problem on a line. In other words, make sure the work is very easy to follow. If I cannot find a problem, I will not grade it and you'll receive a zero. **If you print the test or use separate sheets, PRINT AND SIGN your name at the top of every page.** You can leave this website tab open during the test as you'll also use it to submit your completed test.
- 4) Once the test is complete, scan it and save the document as a PDF. If you do not have access to a scanner, then use a scanning app for your smartphone. If you use your smartphone, you might have to send the file to yourself to get it to your computer in order to submit the test.
- 5) Go back to Blackboard and submit your test using the same page where you downloaded the test.
- 6) Tests are timed, so be sure to submit it within the window. It is advisable to document that the test was sent by taking a photo/screenshot showing the upload was successful. **If a test is submitted outside of the allotted time, the grade will automatically be a zero.**

### Important Notes:

- Students must ALWAYS be facing their webcam/phone and be the only person in the room!
- A student will receive a zero if:
  - The student does not provide a photo ID.
  - The student leaves their computer for ANY reason.
  - The student goes out of view of their webcam for any reason.
  - Turns their back to their webcam for any reason.
  - Uses a cell phone for any reason besides using Zoom if a webcam isn't available.
  - There is another person in the room while taking your assessment or you are heard talking to a person in the room that is not in view of the camera.
  - Turns their webcam and/or audio off during the test.
  - The student takes a test without using Zoom via a webcam or cellphone app and microphone.

Once you begin the test, you must finish it. Do not answer the phone if it rings or you receive a text, use the internet for other pages besides the Blackboard Test page, and definitely do not give me the impression you are cheating. If you have a question during the test, use the hand raise option inside Zoom and I will privately message you back. It's recommended that you keep your phone on do not disturb/airplane mode during the test.

All steps must be shown, including setups for formulas, 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.) I do not need to see screenshots from calculators. You will have 170 minutes for both the Midterm and for the Final. This time includes 20 minutes for printing, scanning, and submitting. The remaining time is for taking the exam. It is your responsibility to manage your time accordingly. Set an alarm to make sure you stay on task.

It's recommended that you view the previous tests on my website. On the website, click on "Classes" and then on "Math 1530". Take those tests and use the answer keys to check your work. **The midterm will cover Chapters 1 - 4. The Final is accumulative with each chapter covered equally.**

## 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, including the setup to the problem, 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. Algebraic 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 there's no work to show, and thus in those cases, the policy does not apply. **If at any time, you need to reach for your calculator to get the answer, then you will need to write down the setup on the test paper and the corresponding answer.**

## Make-ups/Late Material

There will be no make-up tests 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. For instance, if you borrow a calculator, you are obligated to make sure there are no formulas in the calculator.

Misuse of external resources (including, but not limited to, other texts, other student's work, the internet, and the student solution manual) by submitting work that is not their own also constitutes cheating. For example, if a student copies from the student solution manual 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. Never give me the impression that you are cheating. Never look over at other student's work and never talk during the test for any reason. Throughout the course, your handwriting samples will be used for the purpose of comparison. If there is any suspicion that cheating has occurred, such as someone else did the work, then the Cheating Policy will be enacted.

On the first instance of cheating, the student will be reported to the Dean of Student Affairs, the grade received for that entire assignment/exam will be a zero, the student's lowest test score will not be replaced by the Final, if higher, and the final grade will be lowered 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 more information.

## 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.)

Follow the guidelines (see below) to start every week prepared. 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. **Please allow one week for the midterm to be returned.**

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

## Grading

Grades will be based on the following<sup>†</sup>: Final grades are based on:

About Me*	12	Percent	Points	Final Grade
Weekly Planner*	10	90 - 100	504 - 560	A**
Homework	108	80 - 89	448 - 503.99	B**
Quizzes	80	70 - 79	392 - 447.99	C**
Midterm	150	60 - 69	336 - 391.99	D
Final	200	0 - 59	Below 336	F
Total	560	**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
August 24, 2020	Fall Semester Begins
September 7, 2020	Labor Day - College Closed
September 8, 2020	Last Day to Withdraw from Full Term with NO RECORD
November 11, 2020	Veteran's Day - College Closed
November 13, 2020	Last Day to Withdraw from Full Term Course with a "W" Grade
November 26 - November 29, 2020	Thanksgiving Recess - College Closed
December 7-13, 2020	Final Exam Week - Full Term
December 13, 2020	Fall Semester Full Term Ends
December 15, 2020	Final Grades Due

## 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.

## Student Accessibility Services (SAS)

If you need any special course adaptations or accommodations because of a documented disability, please notify your instructor

within a reasonable length of time, preferably the first week of the term with formal notice of that need (i.e. an official letter from the Student Accessibility Services (SAS) office). Accommodations will not be made retroactively. For specific information pertaining to ADA accommodation, please contact your campus SAS office or visit online at <http://www.tri-c.edu/accessprograms> (<http://www.tri-c.edu/accessprograms/>). Blackboard accessibility information is available at <http://access.blackboard.com>.

### Incomplete Grades

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

- a) The student has a **passing status** in the class and has completed at least 70% of the course work, AND
- b) 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.

### Academic Credit

Academic Credit 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. For laboratory hours, one (1) credit shall be awarded for a minimum of three laboratory hours in a standard week for which little or no out-of-class study is required since three hours will be in the lab (i.e. Laboratory 03 hours). Whereas, one (1) credit shall be awarded for a minimum of two laboratory hours in a standard week, if supplemented by out-of-class assignments which would normally average one hour of out-of-class study preparing for or following up the laboratory experience (i.e. Laboratory 02 hours). 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. The standard expectation for an online course is that you will spend 3 hours per week for each credit hour.

### Concealed Carry Statement

College policy prohibits the possession of weapons on college property by students, faculty and staff, unless specifically approved in advance as a job-related requirement (i.e., Tri-C campus police officers) or, in accordance with Ohio law, secured in a parked vehicle in a designated parking area only by an individual in possession of a valid conceal carry permit.

As a Tri-C student, your behavior on campus must comply with the student code of conduct which is available on page 29 within the Tri-C student handbook, available at <http://www.tri-c.edu/student-resources/documents/studenthandbook.pdf>. You must also comply with the College’s Zero Tolerance for Violence on College Property available at <http://www.tri-c.edu/policies-and-procedures/documents/3354-1-20-10-zero-tolerance-for-violence-policy.pdf>

### Coronavirus/Covid-19 Statement

Students are responsible for adhering to all College health and safety guidance, including that which relates to the COVID-19 pandemic. Public health requirements and standards are changing rapidly, and the College is adapting its guidance accordingly. Please check your Tri-C email and visit [tri-c.edu/coronavirus](http://www.tri-c.edu/coronavirus) regularly for updates.

All students must adhere to the following general guidelines, until further notice:

- Remain at home. Do not attend any in-person class or gathering.
- Notify your instructor if you are ill, have tested positive for COVID-19, or have been exposed to an individual who has tested positive for COVID-19.
- Wear a mask or face covering at all times, including, but not limited to: upon entering and exiting any Tri-C facility, in class, and in all common areas.
- Maintain a distance of at least six feet between yourself and others at all times.
- Provide the College with relevant information about your current health status and participate in any required on-site checks (e.g., temperature checks).
- Use only designated areas of Tri-C facilities, including entrances and exits. Sign in and out of Tri-C facilities as directed.

The general guidelines listed above do not encompass all coronavirus-related guidance. These guidelines are subject to change at the discretion of the College and under the direction of public health authorities. Students who fail to adhere to this guidance may be subject to disciplinary action under the College’s Student Code of Conduct and the Student Judicial Code.

### 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. You’ll find a link to my Zoom account on Blackboard. You don’t need an appointment if you come by during office hours. Just pop in anytime you have a question.

I am also available for online tutoring using Zoom. If you wish to meet with me outside of my office hours, please give me advance notice by emailing me at my Tri-C address. Please let me know which day(s) and time(s) you wish to meet. I do not log on unless I know someone is there.

The syllabus is a fluid document and is subject to change. Any changes/clarifications that need to occur will be posted in Blackboard. Be sure to check there throughout the course as not all announcements are emailed out.

An important note: **You are not bothering me!** Some students feel that they ask too many questions. I’d rather you ask than not ask.

### Objectives for this course

1. Upon completion of MATH 1530 College Algebra, the student should be able to:
2. Represent functions verbally, numerically, graphically and algebraically.
3. Solve Equations.
4. Solve Inequalities.
5. Define, Determine, and Graph Conic Sections and solve Non-linear Systems of Equations and Inequalities.
6. Solve systems of linear equations using matrices.
7. 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/>.

# MATH 1530 - TENTATIVE - SCHEDULE

Week of (Mondays)	Sections Covered	Videos to Watch
August 24	Check your Tri-C email for important instructions 1.1 Introduction to Graphing 1.2 Functions and Graphs 1.3 Linear Functions, Slopes, and Applications 1.4 Equations of Lines and Modeling	1 - 11
August 31	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	12 - 26
September 7	3.1 The Complex Numbers 3.2 Quadratic Equations, Functions, and Models	27 - 33
September 14	3.3 Analyzing Graphs of Quadratic Functions 3.4 Solving Rational and Radical Equations 3.5 Solving Equations and Inequalities with Absolute Value	34 - 41
September 21	4.1 Polynomial Functions and Models 4.2 Graphing Polynomial Functions 4.3 Polynomial Division; The Remainder and Factor Theorems	42 - 49
September 28	4.4 Theorems about Zeros of Polynomial Functions 4.5 Rational Functions 4.6 Polynomial and Rational Inequalities <b>Last day to schedule appointment for midterm: Friday, October 2, 2020 at 11:59 pm</b>	50 - 61
October 5	5.1 Inverse Functions 5.2 Exponential Functions and Graphs <b>MIDTERM-WEDNESDAY OCTOBER 7, 2020—See the section Tests for steps on how to access it</b>	62 - 66
October 12	5.3 Logarithmic Functions and Graphs 5.4 Properties of Logarithmic Functions	67 - 72
October 19	5.5 Solving Exponential and Logarithmic Equations 5.6 Applications and Models: Growth and Decay, and Compound Interest	73 - 79
October 26	9.2 Systems of Equations in Three Variables 9.3 Matrices and Systems of Equations	80 - 86
November 2	9.8 Partial Fractions 10.1 The Parabola	97 - 106
November 9	10.2 The Circle and the Ellipse 10.3 The Hyperbola	107 - 114
November 16	10.4 Nonlinear Systems of Equations and Inequalities 11.1 Sequences and Series	115 - 126
November 23	11.2 Arithmetic Sequences and Series 11.3 Geometric Sequences and Series <b>Last day to schedule appointment for Final: Friday, December 4, 2020 at 11:59 pm</b>	127 - 139
November 30	Prep for the Final. Make sure every section of homework is completed. Take <u>all</u> of the practice tests on my website. Let me know if there questions.	
December 7	<b>FINAL-WEDNESDAY DECEMBER 9, 2020—See the section Tests for steps on how to access it</b>	
December 8	<b>Last day to submit homework!</b>	

# HOMEWORK AND QUIZ DUE DATES

Step 1: Get a daily planner

Step 2: Write these dates in the planner

Step 3: Become organized

## HOMEWORK ASSIGNMENTS AVAILABILITY DATES

Sections	Available Dates
1.1 - 1.4	Monday, August 24 - Monday, August 31
2.1 - 2.5	Monday, August 31 - Monday, September 7
3.1 - 3.2	Monday, September 7 - Monday, September 14
3.3 - 3.5	Monday, September 14 - Monday, September 21
4.1 - 4.3	Monday, September 21 - Monday, September 28
4.4 - 4.6	Monday, September 28 - Monday, October 5
5.1 - 5.2	Monday, October 5 - Monday, October 12
5.3 - 5.4	Monday, October 12 - Monday, October 19
5.5 - 5.6	Monday, October 19 - Monday, October 26
9.2 - 9.3	Monday, October 26 - Monday, November 2
9.8, 10.1	Monday, November 2 - Monday, November 9
10.2 - 10.3	Monday, November 9 - Monday, November 16
10.4, 11.1	Monday, November 16 - Monday, November 23
11.2 - 11.3	Monday, November 23 - Monday, November 30

## QUIZ AVAILABILITY DATES

Quizzes Chapter 1 and 2 available Monday, August 24 - Monday, September 7

Quizzes Chapter 3 and 4 available Monday, September 7 - Monday, October 5

Quizzes Chapter 5 and 9 available Monday, October 5 - Monday, November 9

Quizzes Chapter 10 and 11 available Monday, November 2 - Monday, November 30

The first date is when the assignment is available. The second date is when it is due.

Homework and quizzes are due at 11:59 pm of the second date listed.

After the second date listed, homework is penalized 30% (See Homework) and quizzes cannot be turned in (See Make-ups/Late Material).

No exceptions for any reason.