

# Syllabus for Fall 2018 MATH 1470 Section 81814

Cuyahoga Community College Business, Technology & Mathematics Eastern Campus

Course: MATH 1470 Modern Math for Bus/Sci I

Lecture Hours: 04 hours Laboratory Hours: 00 hours

Instructor: Mike McCraith

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 - 1:00 pm

Email: mike.mccraith@tri-c.edu

Website: mathaccordingtomike.com

Text: Finite Mathematics and Calculus with Applications, 9<sup>th</sup> Ed, Lial  
Graphing calculator is required - TI-83/83+, TI-84/84+ is recommended  
Section 81814: MW 10:00 - 11:40 am ESS 2105

## Prerequisites

Math 1200/1270/1280 or placement exam

## Course Description

First of two-semester sequence. Includes linear systems, functions, matrix algebra and linear programming techniques as applied to business problems and simplex method. Math of finance and basic theory of probability and statistics.

## Class Schedule

For the first few 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 test.

## 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. Attendance will be taken and reported every 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, Projects, and PowerPoint Package

There will be online homework assigned for every section that we cover in class. Homework can be accessed on MyMathLab <http://portal.mypearson.com>. The Course ID is mccraith73614. You will have ample time to complete the homework. You should consider printing out the homework to do the problems on paper, log back in, and the submit answers. Each section is worth 5 points. Homework is only available for one week.

Quizzes are also posted on the MyMathLab website listed above. Quizzes cover the entire chapter and are worth 20 points. You have only two hours and one chance to complete the quiz. Make sure you stay organized as you do your homework and quizzes to ensure full credit is received. The last day to take the quiz is the day of the test.

All work and answers for projects, must be on separate sheets of paper that are stapled. If I cannot follow your steps on how you arrived at the answer, do not expect to receive credit for the work. All work must be shown to receive full credit. Late material will not be accepted for any reason.

Projects are posted on Blackboard and are due on test day. Projects are chapter-based and should be attempted after completing the homework and the quiz relating to that chapter. More info on the projects as the course progresses. Each project is 20 points.

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 5 points per chapter. **Whatever sections the test covers is what you will need to turn in for your projects and 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 are turned in on time and a score of 70% or higher is received on all homework assignments, and has not been caught cheating, then the lowest quiz score is **replaced** by the average of the other quizzes and the lowest test score is **replaced** by the Final if the Final is higher. Otherwise, all quiz, tests, and Final scores are kept.

## Tests

A test will be given approximately two classes after the final section the test will include is covered in class. A 200-point Final will be given on the last day of class (see schedule.) 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 website (address above.) On the site, click on "Classes" and then "Math 1470". Take those tests and use the answer keys to check your work.

## Partial Credit Policy

While grading projects, worksheets, and 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. 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 must use the calculator to get the answer, and thus in those cases, the policy does not apply.

## Make-up Exams and Quizzes

There will be no make-up exams offered. No make-up assignments will be accepted **for any reason**. Be sure to have all materials on the day and by the time that they are required which is the beginning of class. Materials turned in after the class has begun will not be graded. If you know you will not be able to make it to class when an assignment is due, you can send a scanned copy of your work to my email. You may also take a photo with your cell phone and email it to me. Make sure the file size is not large or the email may not be received. The deadline for scanned material remains the same as if you were in class. **Extra time will NOT be given for any reason.**

## 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.**

## 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 the impression that you are cheating. Never look over at other student's work and never talk during the test for any reason.

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, 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.)

**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.

## 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.

## 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.

Per College policy, no children in the class.

## Grading

Grades will be based on the following†:

About Me*	10
Weekly Planner*	10
8 Quizzes	160
PowerPoint Package*	40
40 Homework Asgmts.	200
8 Projects	160
4 Exams	400
Final	200
<b>TOTAL</b>	<b>1180</b>

Final grades are based on:

Percent	Points	Final Grade
90 - 100	1062 - 1180	A
80 - 89	944 - 1061	B
70 - 79	826 - 943	C
60 - 69	708 - 825	D
0 - 59	Below 708	F

† Point values subject to change due to time

\* Graded on an all-or-nothing basis

## 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.

## 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		

## 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.

### Things you ABSOLUTELY NEED TO KNOW from Math 1200/1270/1280

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

### Objectives for Math 1470

Upon successful completion of Math 1470, the student should be able to:

1. Graph linear equations and linear inequalities using slope and the x, y intercepts.
2. Find the general equation for a straight line from two given points.
3. Solve linear systems with two variables and business related application problems.
4. Solve systems of linear inequalities.
5. Define functions and use functional notation.
6. Solve quadratic equations and graph quadratic functions.
7. Solve linear programming problems (2 variables) geometrically.
8. Add and multiply matrices; find the inverse of a matrix.
9. Solve systems of equations using matrix techniques.
10. Use the simplex method for maximizing or minimizing a linear programming problem.
11. Solve problems involving business formulas.
12. Use the calculator/computer as a tool to assist in the computations and manipulation of the algebra.
13. Use the properties of probability to solve problems.
14. Define and use mathematical expectations.
15. Graph exponential and logarithmic functions; state and use logarithmic properties.
16. Write a logarithm in exponential form; write exponential expressions in logarithmic form.

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

# Math 1470 Schedule

Day of	Sections Covered
August 27, 29	Introduction 1.1 Slopes and Equations of Lines 1.2 Linear Functions and Applications 1.3 The Least Squares Line
September 3, 5	<b>Labor Day—No Class</b> 2.1 Solutions of Linear Systems by the Echelon Method 2.2 Solutions by Gauss-Jordan Method
September 10, 12	2.3 Addition and Subtraction of Matrices 2.4 Multiplication of Matrices 2.5 Matrix Inverses
September 17, 19	3.1 Graphing Linear Inequalities 3.2 Solving Linear Programming Prob. Graphically Test 1: Chapters 1 and 2
September 24, 26	3.3 Applications of Linear Programming 4.1 Slack Variables and the Pivot
October 1, 3	4.2 Maximization Problems 4.3 Minimization Problems; Duality
October 8, 10	5.1 Simple and Compound Error 5.2 Future Value of an Annuity Test 2: Chapters 3 and 4
October 15, 17	5.3 Present Value of an Annuity; Amortization 7.1 Sets 7.2 Applications of Venn Diagrams
October 22, 24	7.3 Introduction to Probability 7.4 Basic Concepts of Probability 7.5 Conditional Probability; Independent Events
October 29, 31	8.1 The Multiplication Principle; Permutations 8.2 Combinations Test 3: Chapters 5 and 7
November 5, 7	8.3 Probability Applications of Counting Principles 8.4 Binomial Probability 8.5 Probability Distributions; Expected Value
November 12, 14	<b>Veteran's Day—No Class</b> 10.1 Properties of Functions 10.2 Quadratic Functions; Translation and Reflection
November 19, 21	10.3 Polynomial and Rational Functions 10.4 Exponential Functions
November 26, 28	10.5 Logarithmic Functions 10.6 Applications
December 3, 5	Test 4: Chapter 8 and 10 REVIEW
<u>Wednesday, December 12</u>	<b>Final 9:15 am - 11:15 am Same Classroom!</b>

# Due Dates

Step 1: Get a daily planner

Step 2: Write these dates in the planner

Step 3: Become organized

## Homework Assignments Due Dates

Sections	Available Dates
1.1 - 1.3	Monday, August 27 - Wednesday, September 5
2.1 - 2.2	Monday, September 3 - Monday, September 10
2.3 - 2.5	Monday, September 10 - Monday, September 12
3.1 - 3.2	Monday, September 17 - Monday, September 24
3.3, 4.1	Monday, September 24 - Monday, October 1
4.2 - 4.3	Monday, October 1 - Monday, October 8
5.1 - 5.2	Monday, October 8 - Monday, October 15
5.3, 7.1 - 7.2	Monday, October 15 - Monday, October 22
7.3 - 7.5	Monday, October 22 - Monday, October 29
8.1 - 8.2	Monday, October 29 - Monday, November 5
8.3 - 8.5	Monday, November 5 - Wednesday, November 14
10.1 - 10.2	Monday, November 12 - Monday, November 19
10.3 - 10.4	Monday, November 19 - Monday, November 26
10.5 - 10.6	Monday, November 26 - Monday, December 3

## Quizzes and Projects Due Dates

Chapters 1 and 2: Monday, Aug 27 - Wednesday, Sept 19

Chapters 3 and 4: Monday, Sept 17 - Wednesday, Oct 10

Chapters 5 and 7: Monday, Oct 8 - Wednesday, Oct 31

Chapters 8 and 10: Monday, Oct 29 - Monday, Dec 3

Homework and Quizzes are due at 11:59 pm on the second date listed.

Projects are due at 10:00 am in class on the second date listed.

No exceptions for any reason.

You are only allowed to work on projects with fellow students from our class. You can also ask me for help.