

Syllabus for Fall 2018 MATH 1240 Online Section 84149

Cuyahoga Community College Business, Technology & Mathematics Eastern Campus

Course: MATH 1240 Contemporary Mathematics

Instructor: Mike McCraith

Lecture Hours: 03 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: Contemporary Mathematics 1st Edition, McCraith, Van Pelt—Access the book through Blackboard

Scientific calculator required (multi-lined preferred)

Prerequisites

Math 0955, 0960, Math 0980 or placement exam.

Course Description

Applications of mathematics in contemporary life. Introduction to financial literacy, dimensional analysis as applied to measurement and unit conversions, graph theory, topics in probability and descriptive statistics.

Course Schedule

This course has videos on my website above and also on YouTube which can be found by doing a search on YouTube for "Math 1240 Flipped". There are two types of videos: lecture and example. Watch both types, read the book, and take notes as if it were a traditional class prior to attempting the homework and quizzes.

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.

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.

The standard expectation for an online course is that you will spend 3 hours per week for each credit hour.

Homework and Quizzes

Homework and quizzes are posted on MyMathLab: <http://www.mymathlab.com>. The course id needed is mccraith57253. 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 5 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 20 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. Quizzes are due on the last day the test is available. Do not start the quiz until you are ready for it.

Grade Replacement Policy

If all homework assignments are turned in on time and score of 70% or higher is received on all homework assignments, 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, 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 must use the calculator to get the answer, 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.**

Tests

The schedule for the tests is given on the last page. 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, 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.)** 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.

Tests will be available to you in the testing center that you declared and will be able to be taken from Thursday to Monday of that testing week (see the last page). If you choose to switch to a different Tri-C campus to take your test, I must be informed to ensure there is a test ready for you. It is *highly* recommended that you view the previous tests using the Web site. On the Website, click on "Classes" and then on "Math 1240 Online". Take those tests and use the answer keys to check your work.

Make-ups

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. 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.

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 tests 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[†]:

| | |
|--------------|------------|
| About Me* | 15 |
| Homework | 145 |
| Quizzes | 100 |
| 4 Exams | 400 |
| Final | 200 |
| Total | 860 |

Final grades are based on:

| Percent | Points | Final Grade |
|----------|-----------|-------------|
| 90 - 100 | 774 - 860 | A* |
| 80 - 89 | 688 - 773 | B* |
| 70 - 79 | 602 - 687 | C* |
| 60 - 69 | 516 - 601 | D |
| 0 - 59 | Below 516 | 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:

- 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.

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.

Topics you should already know from Math 0955/0960/0980

1. Demonstrate an understanding of real numbers, their operations and basic properties.
2. Simplify and perform basic operations on polynomials and other algebraic expressions.
3. Solve various types of linear equations and inequalities in one variable.
4. Factor polynomials using various techniques.
5. Perform arithmetic operations with algebraic fractions.
6. Graph points, lines and linear inequalities on the rectangular coordinate system.
7. Find the slope and equation of a line.
8. Solve linear systems by graphing, substitution, and elimination.
9. Translate and solve application problems.
10. Understand, simplify and perform operations on radicals and rational exponential expressions.
11. Solve quadratic equations using factoring, completing the square, and quadratic formula.
12. Use techniques for solving quadratic equations to solve equations involving rational expressions.
13. Translate and solve application problems.
14. Graph quadratic functions and inequalities.

Objectives for Math 1240

Upon completion of MATH 1240 Contemporary Mathematics, the student should be able to:

- A. Identify and apply the different terminology and computational methods associated with graph theory.
- B. Determine and use the correct financial formula depending in various situations.
- C. Compute probabilities of various situations.
- D. Convert between different systems of measurement.
- E. Organize, compute, and interpret numerical data.

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.

Math 1240 Online Schedule

| Week of (Mondays) | Sections Covered | Videos to Watch |
|---------------------|---|-----------------|
| August 27 | Check your Tri-C email for important instructions 1.1 Simple Interest | 1 - 5 |
| September 3 | 1.2 Compound Interest 1.3 Consumer Loans | 6 - 16 |
| September 10 | 1.4 More About Home Loans 1.5 Saving for Retirement | 17 - 35 |
| September 17 | 1.6 Average Daily Balance 2.1 The Mean, Median, Midrange, and Mode Test 1*: Chapter 1 available September 20, 2018 | 36 - 44 |
| September 24 | 2.2 Measures of Variability | 45 - 48 |
| October 1 | 2.3 Grouped Data 2.4 Graphical Displays of Data 2.5 Linear Regression Test 2A: 2.2, 2.3, 2.5 available (Take-Home portion) October 4, 2018 (check email) | 49 - 61 |
| October 8 | 3.9 The Standard Normal Distribution 3.10 The Normal Distribution Test 2B: 2.1, 2.4, 3.9, 3.10 available (On-Campus portion) October 11, 2018 | 62 - 69 |
| October 15 | 3.1 Probability Basics | 70 - 80 |
| October 22 | 3.2 Probability with OR 3.3 Probability with NOT 3.4 The Fundamental Counting Principle | 81 - 108 |
| October 29 | 3.5 Conditional Probability 3.6 Permutations and Combinations 3.7 Probabilities with Permutations and Combinations | 109 - 134 |
| November 5 | 3.8 Binomial Probability 3.11 Expected Value Test 3: 3.1 - 3.8, 3.11 available November 8, 2018 | 135 - 144 |
| November 12 | 4.1 Introduction to Graph Theory and Networks | 145 - 151 |
| November 19 | 4.2 Paths, Circuits, Euler Paths, and Euler Circuits 4.3 Hamilton Paths, Hamilton Circuits, and the Traveling Salesman Problem 4.4 Trees | 152 - 169 |
| November 26 | 5.1 Measuring Length in the English and Metric Systems 5.2 Measuring Area and Volume in the English and Metric Systems 5.3 Measuring Weight and Temperature Test 4: Chapters 4 and 5 available November 29, 2018 | 170 - 192 |
| December 3 | Prepare for Final! Practice your tests from this semester. | |
| Monday, December 10 | Last day to take the Final*! | |

* The East, Metro, and West Campus Testing Centers are closed on the Saturday's for Test 1 and the Final. Please make preparations to take the tests on a different day or location.

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 | Monday, August 24 - Monday, September 3 |
| 1.2 - 1.3 | Monday, September 3 - Monday, September 10 |
| 1.4 - 1.5 | Monday, September 10 - Monday, September 17 |
| 1.6, 2.1 | Monday, September 17 - Monday, September 24 |
| 2.2 | Monday, September 24 - Monday, October 1 |
| 2.3 - 2.5 | Monday, October 1 - Monday, October 8 |
| 3.9 - 3.10 | Monday, October 8 - Monday, October 15 |
| 3.1 | Monday, October 15 - Monday, October 22 |
| 3.2 - 3.4 | Monday, October 22 - Monday, October 29 |
| 3.5 - 3.7 | Monday, October 29 - Monday, November 5 |
| 3.8, 3.11 | Monday, November 5 - Monday, November 12 |
| 4.1 | Monday, November 12 - Monday, November 19 |
| 4.2 - 4.4 | Monday, November 19 - Monday, November 26 |
| 5.1 - 5.3 | Monday, November 26 - Monday, December 3 |

Quizzes Availability Dates

Quiz 1: Monday, August 27 - Monday, September 24

Quiz 2: Monday, September 17 - Monday, October 15

Quiz 3: Monday, October 8 - Monday, November 12

Quizzes 4 & 5: Monday, November 12, - Monday, December 3

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

No exceptions.

Testing Dates

Tests are available on these dates. It is up to you to check the hours for the testing center. You will have 120 minutes for the tests and for the final.

| Test Number | First day available | Last day available |
|-------------|------------------------|----------------------|
| 1* | Thursday, September 20 | Monday, September 24 |
| 2A** | Thursday, October 4 | Monday, October 8 |
| 2B | Thursday, October 11 | Monday, October 15 |
| 3*** | Thursday, November 8 | Tuesday, November 13 |
| 4 | Thursday, November 29 | Monday, December 3 |
| Final* | Thursday, November 29 | Monday, December 10 |

* The East, Metro, and West Campus Testing Centers are closed on the Saturday for Test 1 and the Final. Please make preparations to take the tests on a different day or location.

** This is the take-home portion of Test 2. Please check your Tri-C email for a copy of the exam.

*** The College is closed Monday, November 12th in observance of Veterans' Day. The last day for Exam 3 has been extended to accommodate this change.