

**MAT\*137 COURSE SYLLABUS – SPRING 2017**

\*\*\*\* Please read the following carefully, as you are responsible for its content!\*\*\*\*

<b>MAT*</b>	<b>137</b>	<b>Intermediate Algebra (CRN # 1343)</b>	
Department	Course No.	Course Title	
Prepared by	<b>Pam Frost</b>	<b>January 2017</b>	
Course prerequisites:	Faculty Member	Date	
<p>• <i>Eligible for either <u>ENG*101E</u> or <u>ENG*101</u>, together with Math placement into MAT*137</i></p> <p>• <i>OR Eligible for either <u>ENG*101E</u> or <u>ENG*101</u>, and either MAT*085 or MAT*095 with a grade of “C+” or better (Updated October 2016)</i></p>			

Course Location (building/room number): **online**

**Final Exam:** You will be **required to take your final exam on campus**. You can take it either Tuesday, May 9, at 12:30 pm or Monday, May 15 at 6 pm. If neither of these times work for you contact your instructor (P. Frost) right away to make other arrangements. Exams will be given in Snow Hall Room 406.

Scope of course:

This course cannot be used to satisfy the Quantitative Reasoning competency for transfer programs or pathways.

This course is a further study of algebra and mathematical modeling of functions and relations represented by tables, graphs, words, and symbols. Polynomial functions and expressions with special attention to linear, quadratic, exponential, rational, and radical functions are studied. There is an emphasis on modeling and applications for all topics. A graphing calculator is required for this course.

*Prerequisites:* • *Eligible for either ENG\*101E or ENG\*101, together with Math placement into MAT\*137*  
 • *OR Eligible for either ENG\*101E or ENG\*101, and either MAT\*085 or MAT\*095 with a grade of “C+” or better (Updated October 2016)*

Textbooks and other required readings/computer software/materials/library reserve room:

- *Connecticut Intermediate Algebra Student Workbook Version 1.2, 2016 (cost is under \$30)*
- *MyOpenMath free student account (course id: 18210)*
- *Graphing Calculator (TI 84 Plus if you are purchasing a new one). You can rent one from our bookstore for a fee or you can borrow one from our library for free as long as you return it. Also, some cell phones have an app available called a Texas Instruments Graphing Calculator Emulator.*
- *Binder for workbook, spiral for MyOpenMath Online HW and assessments, paper, pencils, eraser, and graph paper*

Office Location	<b>Wheaton Hall, Room 310</b>	Office Hours/	<b>Monday and Wednesday in the Academic Success Center (Chapman Hall Room 717) 11 am – 12:30 pm, Math Office (Wheaton Hall Room 310) 3 – 4:30 pm, or by appointment</b>
Office Telephone:	<b>860-343-5793</b>	Office e-mail:	<b>pfrost@mxcc.edu</b>
		Mailing Address:	<b>Pam Frost – Math Department Middlesex Community College 100 Training Hill Road Middletown, CT 06457</b>

**General Expectations:** Taking this course online can make it that much more difficult to learn and stay on top of the material. If we were to meet in a classroom, you would be spending about 3 hours in class a week and an average of another 3-6 hours outside of class for a total of 6-9 hours per week on this one course. Please keep that in mind so as to give yourself a guideline for how many hours you will need to dedicate to this course to be successful. It is imperative that you keep up with the weekly assignments and assessments for each Lesson covered and do not fall behind. You need to plan your time carefully so that you can complete the course requirements by the assigned due dates.

**Course Organization:** The course is set up using Blackboard (BB). [Announcements](#) will be used to get you started in the class and for periodic updates. I will also send these to your college email. At the beginning of the semester you will have a [Discussion](#) assignment to introduce yourself to your class and me. [Notes for each Week](#) will be provided. They can be found under “Course Content” in “Weekly Notes”. These notes will outline the Sections covered from the workbook that week, what resources are available and where to find them, as well as what assignments and assessments are due and their associated due date/time.

**Workbook Organization:** The workbook is broken down into [Lessons](#). We will cover all Lessons except Lessons 2 and 3. Each Lesson starts with a [Mini-Lesson](#). The Mini-Lesson starts with a summary of the Sections and topics of that Lesson. This is followed by a combination of [Media Examples](#), [Worked Examples](#), and [You Try](#) problems for each Section in the Lesson. The Media Example problems are in the workbook and you will find the accompanying video in *MyOpenMath*. You are to watch the video and copy down what you see as well as any other notes you may find helpful in your workbook. You should read through any Worked Examples and follow the Media and Worked Examples to complete the You Try problems in your workbook. Be sure to show all work. You Try problem answers can be found in *MyOpenMath*. Following the Mini-Lesson is a collection of [Practice Problems](#). These problems are organized by each Section in that Lesson. Full solutions for the Practice Problems can be found in *MyOpenMath*. After the Practice Problems you will find a short [Assessment](#). This is to be completed in your workbook prior to any Quiz or Test.

**MyOpenMath Organization:** *MyOpenMath* is the online courseware we will use for this course. Directions for accessing it, creating an account, and getting started are included later in this document, in Blackboard under “Course Content”, and in our course in *MyOpenMath*. Once you create an account and log in you will be on your Home Page. On the left margin you will see the heading “Courses you’re taking” and underneath you should see our course, [Spring 2017 MAT\\*137 Online \(CRN1343\)](#). Click on this link to enter our course. Along the top and left margin you will see [MyOpenMath tools](#). You will also see our class [calendar](#) and below that the [Discussion Forum](#) (used for questions of the class on online homework problems), [Course Material](#) (pdf of workbook and Appendices), [Video Supplements](#) (graphing calculator), and [each Lesson](#) covered in this course. Within every Lesson you will find [Media Examples](#), [Online Homework](#), Mini-Lesson Worksheet (pdf), [You Try Problem Answers](#), Practice Problems (pdf), [You Try Answers](#), [Practice Problems Solutions](#), and [Assessments](#) (Quiz and/or Test). Some Lessons will also include [additional assigned activities](#).

**MyOpenMath Media Examples:** Each Lesson has a Media Example in *MyOpenMath* associated with the Lesson. The videos correspond to the Media Examples in the student workbook. You should watch the video, write the information discussed in your workbook, and then click the box indicating that you have watched the video to earn credit for the assignment. These grades will be maintained in *MyOpenMath* as well as in the Blackboard Gradebook.

**MyOpenMath Online Homework:** Each Lesson has an Online Homework in *MyOpenMath* associated with the Lesson. These problems are in addition to what is in your workbook. You will have three tries for most problems. The exception are True/False and Multiple Choice questions. After the third attempt, you can generate a new problem for full credit. If you do not understand something, even after multiple attempts, feel free to use the video(s) associated with the problem, “ask your instructor”, or the discussion forum in *MyOpenMath*. Use your spiral notebook for the Online Homework. Label your work with the Lesson number and problem number. Show your work for each problem as you do the homework. If you use a calculator to do a calculation write down in your notebook what you entered in the calculator. If you use a calculator to graph a function you should copy down a sketch

of the function in your notebook. Do NOT write your work on random paper or in another notebook as this work will be part of your portfolio grade (see information on Portfolio below). These MyOpenMath Online Homework grades will be maintained in *MyOpenMath* as well as in the Blackboard Gradebook.

**Labs:** There will be a lab activity at the end of three Units. You will find the Labs in BB once we have covered the necessary concepts needed to complete them. You can use the Word version of the lab and complete it in that format or you can print the pdf version, complete it by hand, and then scan or send a picture of the completed lab to me via email. Any Labs turned in after the due date will have the grade reduced by 20% per class session late.

**Additional Online Activities:** There will be several activities to be completed at various websites. These will be graded based on your demonstrated effort as opposed to full completion and correctness. You will receive additional information on expectations for each activity in the Weekly Notes that week. The labs and these activities will combine for a single grade (see Evaluation information below).

**MyOpenMath Quizzes and Tests:** You will have either a Quiz or a Unit Test to take in *MyOpenMath* each week, except for week zero. These will be similar problems to the ones you did in the Online Homework; however, you will not have multiple tries or any videos available. These will need to be done in one sitting and will have a time limit. Specific details of each assessment will be given in the Weekly Notes that week. You will do your math work on separate paper and submit it to your instructor (P. Frost) via email (scan, take a picture, and/or attach) or snail mail (address on first page of this document) for evaluation for partial credit. The *MyOpenMath* grade will not count unless there is accompanying work submitted. You should also maintain a copy of this work in a separate folder, as this will also be part of your Portfolio (see information below).

**Portfolio:** An organized collection of all work done for this course including:

- Workbook: Completed Mini-Lessons, Assessments, and any assigned Practice Problems for each Lesson covered in this course. Additional Practice Problems completed will be assessed for Extra Credit.
- Spiral Notebook: Work completed while doing *MyOpenMath* Online Homework problems. Each Lesson's work should be labeled and problems should be numbered.
- Folder: Work completed while doing *MyOpenMath* Quizzes and Tests. This work will also be submitted to the instructor (P. Frost) via email or snail mail.

Portfolios will be graded based on completeness. **You must submit a Portfolio of all work done for this course in order to pass the course. Failure to submit a Portfolio will result in an "F" in the course, regardless of your calculated average.** You may include any additional work you may have done such as additional Practice Problems from the workbook, handouts, activities, etc. for extra credit.

**Unit IV Test and Final Exam:** You will be **required to take your final exam on campus.** The format of the part of the Final Exam that covers Unit IV material will be exactly the same as every other Quiz or Test and taken in *MyOpenMath*. In addition, you will have a traditional paper part that covers the cumulative topics. The breakdown of the exam will be about 75% from Unit IV and about 25% cumulative topics. **You must bring a photo ID and EARN AT LEAST A 60% ON THE FINAL EXAM IN ORDER TO PASS THE COURSE. Failure to earn this grade will result in an "F" in the course, regardless of your calculated average.**

**Tutoring:** The College offers free tutoring in the Academic Success Center. They also offer e-tutoring in math (and other subjects). Please try to take advantage of this if you are having any difficulty with the material. I will be available to you in person during my hours listed on the first page. If these times are not convenient you can also set up an appointment to meet with me. You may always email me with questions as well. It is critical that you address problems immediately with a math course.

**Math Placement Tests:** The purpose of the Math Placement Exam is to assess a student's background and place him/her in an appropriate level of mathematics so as to increase the likelihood of a student's success. If a student believes that he/she has been misplaced in a math class, the student is responsible for speaking with his/her math teacher during the first week of the semester. If, after reassessing the placement, the math teacher believes that the student should be reassigned to another math class, the student must complete the course change process before the second week of the semester.

**Evaluation :**

Evaluation methods (exams, term papers, projects, etc.), percentages towards final grades, and relation to course objectives: Your letter grade is based on your overall average as follows:

B+: 87-89	A: 93 and above	A-: 90-92
C+: 77-79	B: 83-86	B-: 80-82
D+: 67-69	C: 73-76	C-: 70-72
	D: 63-66	D-: 60-62
	F: 59 and below	

Your overall average will be determined according to the following breakdown:

<i>MyOpenMath</i> Media Examples Average	5%
<i>MyOpenMath</i> Online Homework Average	10%
Labs (3) and Additional Assigned Activities:	5%
Quiz Average (10):	5%
Unit Test Average (3):	45%
Portfolio	10%
Unit IV Test and Final Exam	20%

**Note: A Portfolio of all work done for this course AND a grade of 60 or better on the Final Exam is required to pass this course. If these criteria are not met you will receive an "F" in the course, regardless of your calculated average. Further, you need a C or better in this course to take subsequent math courses at MxCC that have a MAT\*137 prerequisite.**

**IMPORTANT COLLEGE POLICIES!! PLEASE READ CAREFULLY!**

For information about the college's policies and procedures regarding academic honesty, accessibility/disability services, attendance, audio-recording in the classroom, grade appeals, plagiarism, religious accommodations, weather and emergency closings, and more, please go to the following website: [www.mxcc.edu/catalog/syllabus-policies/](http://www.mxcc.edu/catalog/syllabus-policies/) or scan the QR code with your smart phone. Also, please become familiar with the policies regarding nondiscrimination, sexual misconduct, and general student conduct at the following website: [www.mxcc.edu/nondiscrimination/](http://www.mxcc.edu/nondiscrimination/).

***NON-DISCRIMINATION STATEMENT***

*Middlesex Community College does not discriminate on the basis of race, color, religious creed, age, sex, national origin, marital status, ancestry, present or past history of mental disorder, learning disability or physical disability, sexual orientation, gender identity and expression or genetic information in its programs and activities. In addition, the College does not discriminate in employment on the additional basis of veteran status or criminal record.*

*The following people have been designated to handle inquiries or complaints regarding non-discrimination policies and practices:*

- Primary Title IX Coordinator  
*Dr. Adrienne Maslin*  
*Dean of Students/Title IX and Section 504/ADA Coordinator*  
*amaslin@mxcc.edu; 860-343-5759; Founders Hall Room 123*
- Secondary Title IX Coordinator  
*Ms. Queen Fordham*  
*Coordinator of the Meriden Center Welcome Desk*  
*qfordham@mxcc.edu; 203-608-3011*
- *Ms. Anastasia Pych*  
*Director of Human Resources and Labor Relations, Middlesex Community College*  
*apych@mxcc.edu; 860-343-5751; Founders Hall Room 115*

# *MyOpenMath*

<https://www.myopenmath.com>

## To Create a New Account:

- In the light blue box to the right click on the link titled “Register as a new student”
- Enter a user name. We suggest you use your first name initial followed by your last name
- Enter a password. We suggest “math”.
- Fill in name and email information. Make sure you use an email that you will see on a regular basis.
- Check the box saying you have read and agree to the Terms of Use
- Enter Course ID: **18210**
- There is no enrollment key so leave that blank.
- Click on “Sign Up”
- A new screen will appear confirming that you are enrolled in the course. Click on the link “you can return to the login screen”
- The initial log in screen will appear. Enter your username, password, and click on “login” or enter
- This will bring you to your Home Page in *MyOpenMath*. On the left margin you will see the heading “Courses you’re taking” and underneath you should see our course, Spring 2017 MAT\*137 Online (CRN1343). Click on this link to enter the course.

## Regular Login to access our *MyOpenMath* course:

- Access login page by going to <https://www.myopenmath.com>
- Enter your username and password to login
- Click on the link “Spring 2017 MAT\*137 Online (CRN1343)” to enter our course

## Media Examples:

- Come prepared to class by going over the media examples online and reading the lessons in your workbook. You should take notes in your workbook while you are watching the Media Examples and write down any questions you have on this material.
- *MyOpenMath* will record what you have done in the Gradebook as long as you check the box after watching each video. This will count as your *MyOpenMath* Media Examples Average grade category.
- You also need to thoroughly complete the last problem. Your teacher will grade this item manually and the revised score will show in the *MyOpenMath* Gradebook.

## Online Homework:

- For each Lesson in the text there is an accompanying set of online homework problems. These will be due about every week and a half to two weeks. See the *MyOpenMath* Calendar for the exact due date for each Lesson.
- You get three tries for each problem. You can message the instructor with any questions as well as post it in a forum for other students in the class to see.
- There is a 20% reduction for any work done after the due date.
- *MyOpenMath* will record what you have done in the Gradebook. This will count for your *MyOpenMath* Online Homework Average grade category.

**COURSE OUTLINE**

MAT*	137	Intermediate Algebra			3
Dept. Abbr.	Course No.	Course Title			Credits
Prepared by	Math	Pam Frost	Mary Rayappan	November	2013
	Department	Faculty	Program Coordinator	Division Chairperson	Date
Reviewed by					
	Department		Division Chair	Dean	Date

**Course Description**

**This course cannot be used to satisfy the Quantitative Reasoning competency for transfer programs or pathways.**

**This course is a further study of algebra and mathematical modeling of functions and relations represented by tables, graphs, words, and symbols. Polynomial functions and expressions with special attention to linear, quadratic, exponential, rational, and radical functions are studied. There is an emphasis on modeling and applications for all topics. A graphing calculator is required for this course.**

**Prerequisites:** • *Eligible for either ENG\*101E or ENG\*101, together with Math placement into MAT\*137*

**• OR Eligible for either ENG\*101E or ENG\*101, and either MAT\*085 or MAT\*095 with a grade of "C+" or better (Updated October 2016)**

**General Objectives of the Course**

This course introduces the student to basic non-linear mathematical relationships and prepares them for further study in mathematics. It also includes the following Combined Mathematics Standards/Quantitative Literacy Outcomes:

- 1) Exhibit perseverance, ability, and confidence to use mathematics to make sense of and solve problems
- 2) Perform mental arithmetic and use proportional reasoning
- 3) Analyze problem situations through numerical, graphical, symbolic and/or verbal approaches and modeling
- 4) Use appropriate tools strategically in solving problems
- 5) Recognize patterns, draw inferences
- 6) Communicate and interpret results
- 7) Demonstrate an understanding and appreciation of the usefulness of mathematics in everyday life

Unit #	Instructional Unit	Specific Objectives of Unit
1	Linear Functions	<ol style="list-style-type: none"> <li>1. Provide multiple representations (e.g., words, symbols, graphs, tables) of linear functions by hand and/or using technology</li> <li>2. Determine identifying characteristics of linear functions</li> <li>3. Model and solve real world applications with linear functions (e.g., car depreciation) and systems of linear equations</li> </ol>
2	Quadratic Functions and/or Expressions	<ol style="list-style-type: none"> <li>1. Provide multiple representations (e.g., words, symbols, graphs, tables) of quadratic functions or expressions by hand and/or using technology</li> <li>2. Determine identifying characteristics of quadratic functions or expressions (e.g., factors)</li> </ol>

		<ol style="list-style-type: none"> <li>3. Evaluate, simplify, and perform operations on quadratic functions or expressions</li> <li>4. Solve quadratic equations algebraically (e.g., factoring, square root method, and quadratic formula with rational solutions) and/or graphically</li> <li>5. Solve real world applications involving quadratic equations and functions and recognize the appropriate domain of each application</li> </ol>
3	Rational Functions and/or Expressions	<ol style="list-style-type: none"> <li>1. Provide multiple representations (e.g., words, symbols, graphs, tables) of simple rational functions or expressions by hand and/or using technology</li> <li>2. Determine identifying characteristics of rational functions or expressions</li> <li>3. Evaluate, simplify, and perform operations on simple rational functions or expressions</li> <li>4. Solve simple rational equations algebraically and/or graphically</li> <li>5. Solve real world applications involving rational functions and identify the appropriate domain of each application</li> </ol>
3	Radical Functions and/or Expressions	<ol style="list-style-type: none"> <li>1. Provide multiple representations (e.g., words, symbols, graphs, tables) of simple radical functions or expressions by hand and/or using technology, with primary emphasis on square root</li> <li>2. Determine identifying characteristics of radical functions or expressions</li> <li>3. Evaluate, simplify, and perform operations on simple radical functions or expressions</li> <li>4. Solve simple radical equations algebraically and/or graphically</li> <li>5. Solve real world applications involving radical functions and identify the appropriate domain of each application</li> <li>6. Identify imaginary numbers</li> </ol>
4	Exponential Functions and/or Expressions	<ol style="list-style-type: none"> <li>1. Provide multiple representations (e.g., words, symbols, graphs, tables) of exponential functions or expressions by hand and/or using technology</li> <li>2. Determine identifying characteristics of exponential functions or expressions</li> <li>3. Evaluate, simplify, and perform operations on exponential functions or expressions</li> <li>4. Identify exponential functions within real world applications and recognize the appropriate domain of each application</li> </ol>



# MAT\*137 Intermediate Algebra – MyOpenMath Pilot

## Tentative Calendar of Topics

### Spring 2017

<b>Week # and Dates</b>	<b>Topics</b>	<b>Lessons From Text</b>	<b>Assessments</b>
#0 1/19/17 to 1/22/17	Introduction to Functions	Lesson 1	Discussion Post – Introduce Yourself
#1 1/23/17 to 1/29/17	Introduction to Functions Linear Functions and Applications	Lesson 1 and 4	Lesson 1 Media Examples Lesson 1 Online HW Quiz 1
#2 1/30/17 to 2/5/17	Linear Functions and Applications	Lesson 4	Desmos Marbleslides: Lines Quiz 2
#3 2/6/17 to 2/12/17	Linear Functions and Applications	Lesson 4	Lesson 4 Media Examples Lesson 4 Online HW Linear Lab <b>Unit I Test</b>
#4 2/13/17 to 2/19/17	Introduction to Quadratic Functions	Lesson 5	Quadratic Video Desmos Will It Hit The Hoop? Quiz 3
#5 2/21/17 to 2/26/17	Introduction to Quadratic Functions	Lesson 5	Lesson 5 Media Examples Lesson 5 Online HW Quiz 4 Quadratic Lab
#6 2/27/17 to 3/5/17	Solving Quadratic Equations	Lesson 6	Quiz 5
#7 3/6/17 to 3/12/17	Solving Quadratic Equations	Lesson 6	Lesson 6 Media Examples Lesson 6 Online HW <b>Unit II Test</b>
3/13/17- 3/19/17	<b>SPRING BREAK!</b>		
#8 3/20/17 to 3/26/17	Radical Functions and Rational Exponents	Lesson 7	Quiz 6
#9 3/27/17 to 4/2/17	Radical Functions and Rational Exponents	Lesson 7	Lesson 7 Media Examples Lesson 7 Online HW Quiz 7
#10 4/3/17 to 4/9/17	Rational Functions	Lesson 8	Quiz 8
#11 4/10/17 to 4/16/17	Rational Functions	Lesson 8	Lesson 8 Media Examples Lesson 8 Online HW <b>Unit III Test</b>

<b>Week # and Dates</b>	<b>Topics</b>	<b>Lessons From Text</b>	<b>Assessments</b>
#12 4/17/17 to 4/23/17	Introduction to Exponential Functions	Lesson 9	Paper Folding Video Quiz 9
#13 4/24/17 to 5/30/17	Introduction to Exponential Functions and More Exponential Functions	Lesson 9 and 10	Lesson 9 Media Examples Lesson 9 Online HW Quiz 10
#14 5/1/17 to 5/7/17	More Exponential Functions Reading Day May 4	Lesson 10	Lesson 10 Media Examples Lesson 10 Online HW Exponential Lab
#15 5/8/17	Course Review	Lesson 11	
Final Exam Week 5/9/17 to 5/15/17	Tuesday, May 9, at 12:30 pm Snow Hall Room 406 OR Monday, May 15, at 6:00 pm Snow Hall Room 406 <b>BRING YOUR PORTFOLIO and PHOTO ID!</b>	Units 1-4	Lesson 11 Mini-Lesson Problems <b>Cumulative Final Exam including Unit IV material</b>

**NOTE: The instructor reserves the right to make changes to the above syllabus as necessary.**