

University City High School

Intermediate Algebra (StLCC: MTH 140)

SYLLABUS 2020-2021

Amy Titler

atitler@ucityschools.org

Course Description:

Intermediate Algebra introduces students to the main parent functions studied in Algebra and algebraic skills to be successful in a college mathematics course. Students will encounter several types of assessment within this course: unit quizzes and exams, comprehensive exams, and experimental investigations that require collecting and analyzing data using technology. Intermediate Algebra students will have the option to take the class for college credit through StLCC (see below).

Textbook:

Algebra for College Students, Ninth Edition. Margaret L. Lial, John Hornsby, and Terry McGinnis. Pearson, 2020.

Course Expectations:

Students will be expected to have their note packet (provided) and their Chromebook to attend class every day. Completing assignments, attending class daily, and seeking help when needed are essential components of successfully mastering this course.

Calculators:

A graphing calculator is required for the course. We strongly recommend one in the Texas Instruments TI-Nspire family. A calculator will be assigned for home use for the 2020-2021 school year, but it would be more beneficial for each student to have their own if at all possible. Some tests and assignments will allow a calculator, others will not, and some will be a combination of the two.

Formative & Summative Assessments:

All homework will be assigned on MyMathLab. Assignments will be able to be edited/reviewed/completed for an entire unit until MIDNIGHT the night before the scheduled assessment. Each assignment will be worth 10 points in the formative category and will be entered by unit. A student will earn full credit for all assignments with a score of 80%+ and all assignments less than 80% will be rounded to the nearest ten for scoring purposes. For example, a score of 73% will count for 7 points while a score of 76% will count for 8 points. Study guides are available on MyMathLab as well, but are not required this will be scored similarly for extra credit. Each semester will have a CUMULATIVE (non-multiple choice) final exam.

Grading Scale:

90 – 100 A
80 – 89 B
70 – 79 C
60 – 69 Credit
Below 60 No Credit

Grade Components:

Formative Assessments 30%
Homework (10 pts each)
POP Quizzes (10 pts each)

Summative Assessments 70%
PLANNED Quizzes (50 pts each)
Unit Assessment (100 pts each)
Final Exam (200 pts each semester)

College Credit Option:

Students may enroll in MTH 140: Intermediate Algebra through the St Louis Community College Dual Credit Program. They will earn three hours of college credit. Students will be expected to

comply with all StLCC policies and will need to meet a GPA requirement of 2.6+ to be able to register.

Because Intermediate Algebra is offered for college credit test retakes are highly discouraged. On campus, test retakes are not administered as a general practice.

Expectations and Procedures:

1. Be respectful of each other and follow all district and school distance learning guidelines.
2. Be on time (logged in and ready to begin). District tardy policy will be followed.
3. Be prepared with all materials.
4. Because electronic devices such as cell phones and iPods have the capacity to store formulas and share test questions and answers with friends: **assessments will be designed to accommodate technology availability. While collaboration is encouraged, there will be consequences for academic dishonesty when “collaboration” crosses into academic dishonesty.** Thank you for helping me to make sure students understand the importance of this rule.
5. **DO YOUR BEST!**

****Academic Dishonesty:* defined as plagiarism, cheating on tests, copying all or part of another student’s assignments or papers, and/or forging parent or teacher’s signature on document. Any assignment meeting this criterion will result in an automatic zero.

****Electronic Devices:* while it is important to recognize that this may be a valuable tool to the learning process, it is also a great distraction therefore usage will not be permitted at UCHS.

Chromebooks:

All homework assignments and quizzes will be given using MyMathLab. It is imperative that students have their Chromebooks in working order. Please contact the technology help desk ASAP if your Chromebook needs repaired or serviced.

Math Help:

MyMathLab comes with online help tutoring and example videos. All lesson videos will be posted in Google Classroom at the **end of each class day**. I am also available outside of “school hours” for tutoring and further assistance: please make arrangements via email or Google Classroom.

It’s going to be a wonderful year! Please do not hesitate to contact me at

atitler@ucityschools.org

Please note this is a yearlong plan and dates will change to correspond to student need.

Unit 1: Relations and Functions **6 periods**

- 1.1 Linear Equations in One Variable
- 1.3 Applications of Linear Equations
- 1.4 Further Applications of Linear Problems
- 2.5 Introductions to Relations and Functions
- 2.6 Function Notation and Linear Functions

Assessment #1: September 22

Unit 2: Linear Functions **8 periods**

- 2.1 Linear Equations in Two Variables
- 2.2 The Slope of a Line
- 2.3 Writing Equations of Lines
- 2.6 Function Notation and Linear Functions

Assessment #2: October 15/16

Unit 3: Quadratic Functions and Complex Numbers **17 periods**

- Chapter 5: Factoring (7 periods)
- 5.1 Greatest Common Factors and Factoring by Grouping
- 5.2 Factoring Trinomials
- 5.3 Special Factoring
- 5.4 A General Approach to Factoring
- 5.5 Solving Quadratic Equations Using the Zero-Factor Property

Assessment #3: November 9/10

- Chapter 8: Quadratic Equations and Inequalities
- 8.1 The Square Root Property and Completing the Square
- 8.2 The quadratic Formula
- 8.4 Formulas and Further Applications
- 7.7 Complex Numbers

Assessment #4: December 17/18

Unit 4: Rational Functions **8 periods**

- 6.1 Rational Expressions and Functions: Multiplying and Dividing
- 6.2 Adding and Subtracting Rational Expressions
- 6.3 Complex Fractions
- 6.4 Equations with Rational Expressions and Graphs
- 6.5 Applications of Rational Expressions
- 6.6 Variation
- 11.4 Graphs and Applications of Rational Functions

Assessment #5: February 4/5

Unit 5: Radical Functions **9 periods**

- 7.1 Radical Expressions and Graphs
- 7.2 Rational Exponents
- 7.3 Simplifying Radicals, the Distance Formula, and Circles

- 7.4 Adding and Subtracting Radical Expressions
- 7.5 Multiplying Radical Expressions
- 7.6 Solving Equations with Radicals

Assessment #6: March 11/12

Unit 6: Exponential and Logarithmic Functions **15 periods**

- 10.1 Inverse Functions
- 10.2 Exponential Functions
- 10.3 Logarithmic Functions
- 10.4 Properties of Logarithms
- 10.5 Common and Natural Logarithms
- 10.6 Exponential and Logarithmic Equations; Further Applications

Assessment #7: May 13/14