

Mrs. Jessie Rezba
Herscher High School
Room 240

Contemporary Math Syllabus

Kankakee Community College TM Course
Fall 2020

What we will learn

High School Transitional Math 4 – Quantitative Literacy and Statistics

ISBE SIS Code: 0220 IA001

Portability Code: TM002

TEXT: Math Lit, 2nd Edition by Kathleen Almy & Heather Foes

ISBN: 978-013-443-3110

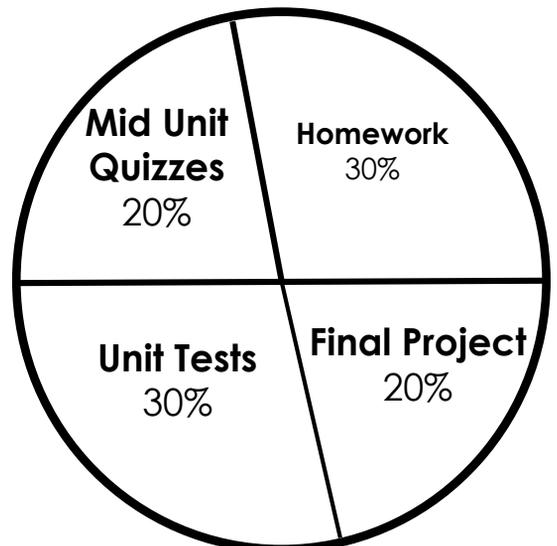
A semester course that allows entry into Dual Credit KCC Math 1704 2nd semester
Weeks 1-4 Unit 1: Where do we Start? Develop essential numeric & algebraic skills and use technology
Weeks 5-8 Unit 2: How does that Work? Simplify expressions, solve equations & understand procedures
Weeks 9-12 Unit 3: When is it worth it? Write, graph & solve linear, quadratic & exponential functions
Weeks 13-15 Unit 4: What else can we do? Focus on statistics, variation, and functions in applications
Week 16 Cumulative Project Demonstrate mathematical reasoning and solve real life problems using functions and statistics

Classroom Expectations

FOLLOW THE 4 Bs

- 1. Be on time:** Being frequently late will result in a detention.
- 2. Be prepared:** You will have your text, binder, calculator, and pencils for my class.
- 3. Be respectful:** Respect your fellow classmates and teacher by listening when someone is speaking. Raise your hand to speak.
- 4. Be aware of deadlines:** Pay attention when I tell you when an assignment is due and write it down! See me if you need help!

Assignments & Grading



Grading scale

A – 90-100%

B – 80-89%

C – 70-79%

D – 60-69%

F – BELOW 60%

Get connected!



rezbaj@hcsud2.org



815-426-2103 ext. 6240



Google: Mrs. Rezba
1st result = Mrs. Rezba's webpage



Google Classroom Code:
3t6bva7



Text: @rezbafm
To: 81010

materials

Pencils

Lined Paper

Binder

Calculator

Highlighter

Course Details

Course Competencies



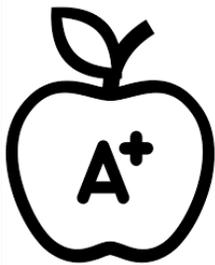
- Students can apply, analyze, and evaluate the characteristics of numbers in authentic modeling and problem solving situations.
- Students can perform operations on numbers and make use of those operations in authentic modeling and problem solving situations.
- Students can propose various alternatives, determine reasonableness, and then select optimal estimates to justify solutions.
- Students can demonstrate understanding of the characteristics of variables and expressions and apply this knowledge in authentic modeling and problem solving situations.
- Students can perform operations on expressions in authentic modeling and problem solving situations.
- Students can create, solve, and reason with equations and inequalities in the context of authentic modeling and problem solving situations.
- Students can apply, analyze and evaluate the characteristics of functions in authentic modeling and problem solving situations.
- Students can build and use functions including linear, nonlinear, and geometric models in authentic modeling and problem solving situations.
- Students can evaluate mathematical models and explain the limitations of those models.

Course Description

Math course framework designed to prepare and transition students directly into college and career pathways requiring general education college level math competencies in quantitative literacy and statistics. The competencies within each domain should include but are not limited to: numeracy (operation sense, estimation, measurement, quantitative reasoning, basic statistics, and mathematical summaries), application based algebraic topics, and functions and modeling. Upon completion students should be able to: demonstrate proficiency and understanding in basic numeracy competencies in whole numbers, integers, fractions, and decimals, use estimation and explain/justify estimates, apply quantitative reasoning to solve problems involving quantities or rates, use mathematical summaries of data such as mean, median, and mode, use and apply algebraic reasoning as one of multiple problem-solving tools, and use functions and modeling processes. Course to be delivered through authentic application, problem-based instruction designed to build mathematical conceptual understanding and critical thinking skills. Students who earn a C or better will be able to use this course for placement at community colleges and some state universities.



Final Project



Final Project: Students will complete a comprehensive portfolio of questions designed to show fluency and integration of all the course competencies. Students will be asked to provide correct numeric and algebraic responses as well as explanations of methods used. Students will also be required to complete one of the focus problems they did not complete during the semester plus an additional mathematical modeling problem. Group members may not work on the same focus problem for the final project. Project is due at the end of the semester.

Getting Ready & Homework Assignments

Getting Ready Assignments: A focus is put on one lesson in each half-unit. Each Getting Ready is optional for Extra Credit. Getting Ready Assignments will be sent out using GoFormative

Homework Assignments: Each lesson has a listing of homework problems to look at to prepare for assessments to be turned in on the date of either the Mid Unit Assessment or End of Unit Assessment. Homework answers must be submitted on the GoFormative website. It is suggested to complete the problems first on a scratch sheet of paper before finalizing the graded submission. Late homework will not be accepted.



Electronic Resources

Texting with Remind

Remind is a free confidential service with apps for Android and iOS which allows you the student/parent and the teacher to text each other! Mrs. Rezba uses remind to send out reminders, either whole class or individual student. You can use remind to privately ask Mrs. Rezba a question or let her know something and she can respond directly to you as soon as she gets the notification. To sign up, look at page one for texting directions or ask Mrs. Rezba for help!

Mrs. Rezba's Website

Mrs. Rezba's classroom website has all the course material you need – **get there by googling “Mrs. Rezba” and it's the first link that pops up!!!** Here you will find:

- Syllabus
- Link to Planbook for pacing
- Google Classroom Info (see →)
- Important documents .
- GoFormative Info (see ↓)

Lesson Pacing in Google Classroom

In the Classwork portion of Google Classroom you will find the content of the course broken up week by week.

If you know you're going to be absent: look ahead and see what you're going to miss.

If you're unexpectedly absent: look and see what you did miss.

If you're wanting to know what's coming up: look and see the *tentative* pacing.

GoFormative

In GoFormative you will find all items you are being assessed on. You will be required to submit all assessments through the links provided to GoFormative in Google Classroom.

- * *Getting Ready Answers*
- * *Bookwork Assignments*
- * *Unit Focus Problems*
- * *Unit Quizzes*
- * *Unit Tests*
- * *Final Project*



Nearpod Videos

Students will be using Nearpod to watch videos and participate in notes to prepare for the lessons to be covered during the upcoming class period. Links to the Nearpod lessons will be found in Google Classroom.

SUCCESS IS THE SUM OF SMALL EFFORTS, REPEATED DAY IN AND DAY OUT.

Classroom Policies

1 Cell Phone Policy

ZERO CELL PHONES ALLOWED.

There is a "Cell Phone Day Care" in the back of the room for those tempted. There's also a charging station to utilize during class.

1st Offense: Warning

2nd Offense: Call home & Referral

3rd Offense: Referral & Detention



Calculator Policy

2

Must have a calculator daily.

There are some calculators students may borrow for a class period.

Classroom calculators **may not** leave the room. Students are expected to treat this technology with respect and any student caught misusing calculators will be banned from borrowing for a month.

On quiz and test day the memory and programs of every calculator used by students will be cleared by Mrs. Rezba.



3 Water/Snack Policy

ONLY WATER & JUICE are allowed in the room provided they are in a container that can close.

SNACKS are allowed based on dietary needs and with Mrs. Rezba's permission.

Snacks that are disruptive will be confiscated and disposed of



5 Vandalism Policy

Any student caught defacing the property of the school, Mrs. Rezba, or classmates, will be disciplined accordingly.

Punishments will range from cleaning the room to referral for detention depending on the severity of the vandalism.



Academic Integrity

4

There is **ZERO TOLLERANCE** for cheating. All work presented to Mrs. Rezba will be the student's own. Any student caught cheating or assisting a classmate to cheat will receive an automatic zero for the work in question. The student will also receive a referral to the office for further disciplinary action.

It is expected every student will always exhibit high levels of academic integrity.



Units of Study

Unit 1: Where do we start?

Unit 1 establishes fundamentals for the semester by introducing important vocabulary, skills, and concepts for future units. It develops essential numeric and algebraic skills while incorporating the use of technology. The lessons are organized around the driving question "Where do we start?" which encourages conversations about how to begin a difficult problem.

Week 1: Lessons 2–4

Review Pre-Algebra
Graphing Points
Ratios and Proportions

Week 2: Lessons 5–8

Probability Basics
Understanding Integers
Integer Operations
Means

Week 3: Lessons 9–12

Making and Interpreting Graphs
Scatterplots
Converting Units
Percent Change

Week 4: Lessons 13–16

Algebraic Terminology
Recognizing Patterns
Linear and Exponential Change
Perimeter and Area

Focus Problems: BP Oil Spill*, Medication Errors, College Tuition

Skills & Concepts Highlighted in BP Oil Spill: Interpret ratios, scale ratios to produce equivalent ratios, determine if quantities are proportional, apply, find and interpret percent change, make conjectures and generalize patterns

Unit 2: How does that work?

Unit 2 contains many topics seen in a beginning algebra course. It develops a deeper understanding of operations that is then used to simplify expressions and solve equations. The driving question "How does that work?" ensures lessons focus on understanding on how and why procedures work.

Week 5: Lessons 2–4

Weighted Means
Basic Exponent Rules
Adding Polynomials

Week 6: Lessons 5–8

Applying Order of Operations
Rewriting Expressions
Distributive Property
Equivalent Expressions

Week 7: Lessons 9–12

Using Operations Correctly
Verifying Solutions
Solving Simple Equations
More Equation Solving

Week 8: Lessons 13–17

Writing and Solving Equations
Using Proportions
Pythagorean Theorem
Theoretical Probability
Volume and Surface Area

Focus Problems: Child's Height*, Magic Numbers in Baseball, Six Degrees of Separation

Skills & Concepts Highlighted in Child's Height: Write an equation to model a situation, determine if two expressions are equivalent, verify a solution to an equation, solve a problem numerically and algebraically, use variables to represent unknown quantities

Unit 3: When is it worth it?

Unit 3 focuses on writing and graphing linear functions as well as factoring quadratic expressions and solving quadratic equations. It also extends earlier content with equation solving and exponential functions. The driving question "When is it worth it?" ensures lessons facilitate discussion about the use of numeric, graphic, and algebraic techniques.

Week 9: Lessons 2–4

Correlation
Slope
Distance Formula

Week 10: Lessons 5–8

Linear Relationships
Slope-Intercept Form
Writing Linear Equations
Exponential Functions

Week 11: Lessons 9–12

Solving Nonlinear Equations
Rewriting Formulas
Greatest Common Factors
Factoring Quadratic Expressions

Week 12: Lessons 13–16

The Quadratic Formula
Graphing and Substitution
Elimination
Quadratic Functions

Focus Problems: Deciding to Run*, Paper Books vs. Ebooks, Hybrid Cars

Skills & Concepts Highlighted in Deciding to Run: Interpret the slope as a rate of change, make comparisons using equations, tables and graphs, model with functions, solve non-linear equations, solve an equation for a specified variable, use graphs to support answers

Unit 4: What else can we do?

Unit 4 includes some topics often found in intermediate algebra along with more statistical content. The driving question "What else can we do?" ensures lessons highlight additional objectives such as negative exponents, variation, and functions.

Week 13: Lessons 2–4

Dimensional Analysis
Scientific and Engineering Notation
Negative Exponents

Week 14: Lessons 5–8

Standard Deviation
Understanding Logarithmic Scales
Direct Variation
Inverse Variation

Week 15: Lessons 9–12

Function Notation
Vertical Line Test, Domain, and Range
Vertex Form of a Quadratic Function
Trigonometric Functions

Focus Problems: Temperature Variability*, Size Matters, Bouncing Ball

Skills & Concepts Highlighted in Temperature Variability: Identify variation from a graph, table or equation, convert units using dimensional analysis, identify sequences, write functions, make graphs

Unit Assignments

Unit 1: Where do we start?

Unit 1 Part 1 - Due Wednesday 9/2

Lesson	Bookwork Assignment (can change)
8/24 1.2	p 12: 1, 2, 4, 5, 7, 8, 9a-c
8/24 1.3	p 24: 1, 2, 5
8/24 1.4	p 30: 1, 4, 5, 7, 10, 12, 14
8/24 1.5 Getting Ready p 33 ALL - Due 8/25	
8/26 1.5	p 38: 1 - 3, 5, 7
8/26 1.6	p 44: 1 - 5, 8 - 9
8/26 1.7	p 53: 1 - 5, 9, 11
8/28 1.8	p 62: 1 - 5, 7, 10
9/1	WORK DAY

Unit 1 Part 2 - Due Friday 9/18

Lesson	Bookwork Assignment (can change)
9/3 1.9	p 73: 1 - 4, 6, 8
9/3 1.10	p 87: 1, 2, 4, 5, 7
9/3 1.11 Getting Ready p 92 ALL - Due 9/8	
9/9 1.11	p 97: 1, 2, 5 - 9
9/9 1.12	p 107: 1, 2, 5 - 9
9/11 1.13	p 115: 2, 3, 4
9/11 1.14	p 121: 1 - 3, 6, 7, 9
9/15 1.15	p 132: 1 - 3, 5, 6
9/15 1.16	p 143: 1, 2, 4 - 6
9/17	WORK DAY

Assessment Due Dates

9/2 Mid Unit 1 Quiz
9/18 Unit 1 Test

Unit 2: How does that work?

Unit 2 Part 1 - Due Friday 10/2

Lesson	Bookwork Assignment (can change)
9/17 2.2 Getting Ready p 163 ALL - Due 9/18	
9/21 2.2	p 172: 1, 2, 5a, 5b, 6, 7
9/23 2.3	p 182: 1, 2, 7, 8
9/23 2.4	p 188: 1 - 3, 5, 7
9/23 2.5	p 194: 1, 2, 4a, 5 - 8
9/25 2.6	p 200: 5, 7, 9
9/25 2.7	p 207: 1, 4
9/25 2.8	p 213: 1, 2, 7
9/29 2.9	p 220: 2 - 6, 8
10/1	WORK DAY

Unit 2 Part 2 - Due Monday 10/19

Lesson	Bookwork Assignment (can change)
10/5 2.10	p 228: 1 - 10
10/5 2.11	p 237: 1 - 9
10/5 2.12	p 248: 1, 2, 4, 6, 7 - 17
10/7 2.13	p 255: 1 - 8
10/7 2.14	p 262: 1 - 8
10/7 2.15	p 269: 1, 2, 4 - 7
10/7 2.16 Getting Ready p 271 ALL - Due 10/13	
10/14 2.16	p 277: 1 - 7
10/14 2.17	p 283: 1 - 9
10/16	WORK DAY

Assessment Due Dates

10/2 Mid Unit 2 Quiz
10/19 Unit 2 Test

Unit 3: When is it worth it?

Unit 3 Part 1 - Due Thursday 10/29

Lesson	Bookwork Assignment (can change)
10/20 3.2	p 308: 1 - 7
10/20 3.3	p 319: 1 - 9
10/20 3.4	p 328: 1 - 8
10/22 3.5	p 337: 1, 2, 3bcg, 4, 5, 7, 8
10/22 3.6	p 349: 1 - 3, 5 - 7
10/22 3.7	p 358: 1 - 7
10/22 3.8 Getting Ready p 361 ALL - Due 10/23	
10/26 3.8	p 368: 1 - 6
10/2/	WORK DAY

Unit 3 Part 2 - Due Wednesday 11/18

Lesson	Bookwork Assignment (can change)
10/30 3.9	p 377: 1 - 7
10/30 3.10 Getting Ready p 379 ALL - Due 11/2	
11/4 3.10	p 385: 1 - 9
11/4 3.11	p 393: 1 - 4, 6
11/6 3.12	p 404: 1 - 7, 10
11/6 3.13	p 411: 1 - 5, 7
11/10 3.14	p 422: 1 - 7
11/10 3.15	p 432: 1 - 7
11/12 3.16	p 440: 1 - 6
11/16	WORK DAY

Assessment Due Dates

10/29 Mid Unit 3 Quiz
11/18 Unit 3 Test

Unit 4: What else can we do?

Unit 4 Part 1 - Due Wednesday 12/2

Lesson	Bookwork Assignment (can change)
11/18 4.2	p 463: 1 - 5
11/18 4.3 Getting Ready p 465 ALL - Due 11/19	
11/20 4.3	p 473: 1 - 9
11/20 4.4	p 481: 1, 2, 4, 6
11/24 4.5	p 490: 1 - 10
11/24 4.6	p 501: 1, 2, 4, 5
12/1	WORK DAY

Unit 4 Part 2 - Due Thursday 12/10

Lesson	Suggested Problems
12/3 4.7	p 512: 1 - 6
12/3 4.8 Getting Ready p 515 ALL - Due 12/4	
12/7 4.8	p 524: 1 - 5, 7
12/7 4.9	p 531: 1 - 6
12/7 4.10	p 538: 1 - 6
12/9	WORK DAY

Assessment Dates

12/2 Mid Unit 4 Quiz
12/10 Unit 4 Test