MATH 115-970   Applied College Algebra 3 Semester Hours   WKU On Demand

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Office Hours: By appointment

Course Description

This course provides Non-STEM students with the ability to understand and apply mathematical skills and concepts. Math 115 students will be able to: use fundamental mathematical reasoning principles; interpret information presented in tables or graphical displays; use graphical, symbolic, and numeric methods to solve practical problems; and apply an appropriate mathematical model to the problem to be solved. This course does not serve as a prerequisite for Math 117. The content of the course will include:

- Introduction to Functions
- Linear and Quadratic Functions
- Exponential and Logarithmic Functions
- Systems of Equations
- Real World Applications

Learning Objectives:

This course fulfills the Quantitative Reasoning requirement in the Foundations category of WKU's Colonnade program. As part of that program, Math 115 has the following learning objectives:

Students will demonstrate the ability to:

1. Interpret information presented in mathematical and/or statistical forms.
2. Illustrate and communicate mathematical and/or statistical information symbolically, visually and/or numerically.
3. Determine when computations are needed and execute the appropriate computations.
4. Apply an appropriate model to the problem to be solved.
5. Make inferences, evaluate assumptions, and assess limitations in estimation modeling and/or statistical analysis.

Specifically, students will be able to:

1. Solve linear, quadratic, exponential and logarithmic equations.
2. Graph linear, quadratic, exponential and logarithmic equations.
3. Recognize linear, quadratic, exponential and logarithmic data.
4. Perform least-square regression with linear, quadratic, exponential and logarithmic data.
5. Solve applied problems involving linear, quadratic, exponential and logarithmic functions.
6. Solve systems of equations in two variables and solve applied problems involving systems of equations.

Prerequisites: <u>At least one</u> of the following criteria must be met to enroll in Math 116:
- Math ACT score of 22 or better OR Math SAT score of 540 or better
- High School GPA (unweighted) of 3.5 or higher
- A score of 14 or better on the WKU Math Placement Exam within the last year
- A score of 14 or better on the KYOTE College Algebra Exam within the last year
- Completion of DMA 096C with a grade of C or better

Diversity, Equity, and Inclusion will serve as the foundation for a learning environment in my classroom. Whether you are short, tall, or in between, you will have a place in my classroom. For I am a tall woman to some and short to others. I am a woman of color, and all colors produce a beautiful picture to admire, study, and learn from. I am first generation; I am a proud Army Brat. I have learned from many cultures and traveled to my towns, cities, states, and lands. I want my classroom to be a zone free of hate, indifference, and intolerance. I am a friend, a mother, a sister, and a daughter. Together we can learn from each other. Together we can teach each other. Together we can promote and teach acceptance in my classroom. I am woman of STEM (science, technology, engineering, and mathematics), I am WISE (woman in science and engineering), I am an educator. You may not like my subject, and I will not judge you, but I will help you to appreciate the beauty it has to offer. I wear many badges of honor and I am Diverse and will promote this throughout this learning experience. I am Equity and will be sure that all are treated as I would like to be treated, with respect and dignity. I am Inclusion and will be proud to include all in the learning process.

CREATE SAFE SPACES FOR YOURSELF. WRAP YOURSELF IN GOODNESS AND WARMTH AND LOVE. STAY SURROUNDED BY PEOPLE WHO ARE GENUINE- THINK TWICE IF YOU CAN'T TRUST THEM WITH YOUR HEART. YOU ARE ALLOWED TO PROTECT YOUR PEACE. BE MINDFUL AND AWARE OF ALL ENERGY THAT YOU ALLOW INTO YOUR LIFE.

-ALEX ELLE

Textbook: <u>Essentials of College Algebra with Modeling & Visualization</u>, 4th Edition, Rockswold.

MyMathLab access code is required for tests, quizzes, and homeworks.

YOU WILL NEED TO SEND AN EMAIL TO robin.ayers@wku.edu TO RECEIVE A WELCOME EMAIL AND FURTHER INSTRUCTIONS FOR GAINING ACCESS AND COURSEID FOR MYLAB ACCESS AS WELL AS TEST INFORMATION.

Graphing calculator is provided (TI 84 Silver Edition) for classroom use. TI-89s, TI-92s, and the Casio series 115s are prohibited. Cell phones may not be used as calculators.

Homework: All homework will be done on the online homework system, called MyMathLab. It will be your responsibility to keep up with your homework. Mathematics must be practiced in order to master its components. You will have an unlimited number of attempts to complete a problem, but when an assignment closes, I WILL NOT REOPEN IT!! Homework will be assigned with specific deadlines for completion for each section covered. A review for each unit exam will be included in the homework assignments. A grade of at least 80% will be necessary on each such unit review and on the final review before a student is allowed to take the corresponding exam. The reviews will NOT be a part of your homework grade. *Organizing and keeping the paper work you used to complete your homework will be beneficial in preparing for exams.*

Quizzes: These quizzes will be online quizzes using MyMathLab. You will be permitted to take these quizzes at your home during your leisure time…but these quizzes will be timed. You will be allowed a maximum of 60 minutes to complete a quiz. You need to watch your time…after 60 minutes the quiz will end whether you are done or not. I do this so that you are not just trying to open a textbook or your notes continuously….practice will help. There will be NO adjustments in the scores you receive on the quizzes, since you will be taking them in an unsecured setting….i.e. not a testing center, but your home.   You will be allowed TWO attempts per quiz of which the highest score will be recorded.

Exams/Final: please refer to the welcome email about test in the course.

The Learning Center: The Learning Center (DUC A330) provides **free** supplemental education programs for all currently enrolled WKU students. For more information, or to schedule a tutoring appointment, please call TLC at (270) 745 - 6254 or log on to their website at www.wku.edu/tlc.

Course website: We will be using WKU's Blackboard (as the homepage) and Pearson's MyMathLab as technology based instruments for this course. Class notes, assignments, and announcements will be posted there. *Please note I want you to use your WKU EMAIL address in both the Blackboard and the MyMathLab accounts to which most course announcements will be sent.*

Course Grade: A weighted average for this course will be calculated using the following scale.

Homework	10%	Letter grades will be assigned from the weighted	
Quizzes	10%	average using the following grading scale.	
Module Exams	60% (15% each)	A	90 – 100
Final Exam	20%	B	80 - 89
		C	70 - 79
		D	60 - 69
		F	59 and below

Note: Although students may earn a D with a grade of 60 to 69, please be aware that many courses require a C in Math 115 as a prerequisite and several majors require a C in Math 115 to satisfy a general education requirement in mathematics.

Credit for a course in which a grade of "F" has been received can be earned only by repeating the course in residence unless prior approval is given by the head of the department in which the course was taken.

Gradebook: Grades will be posted on MyMathLab. Your overall average on MyMathLab is usually very accurate, however I reserve the right to make gradebook corrections to keep it consistent with the syllabus. If you see something that doesn't make sense, please alert me.

ADA Statement: In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center (SARC) in Downing Student Union 1074. The SARC telephone number is (270) 745-5004; TTY is (270) 745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the SARC.

Academic Dishonesty: Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the coursework in which the act is detected or a failing grade in the course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions.

MyMathLab Tips

General Navigation
- The timeline at the top of the homepage will help keep you on track with online homework. It shows when things were assigned and when they are due. It also indicates when announcements have been posted.
- To find lecture outlines and other materials that you should access and/or print prior to class meetings, click on the "Course Documents" link on the left-hand side of the course page.
- Homework can be found via the "Homework" link.
- The online version of the textbook is available via the "Multimedia Library" link.
- Anything involving the "Study Plan" is optional.

Completing Assignments
- Always start assignments on the day they are assigned! The **due** date is not the same thing as the **do** date!
- All online homework assignments will be posted under the "Homework" link.
- The textbook has a section of <u>sample</u> tests and quizzes under the "Quizzes & Tests" link. I did *not* create these, and they are completely optional. The quizzes I assign will be in a separate section under the "Quizzes and Tests" link.
- Some homework problems allow for an infinite number of attempts. Please note that just because you click the "Final Check" button for a problem, that does not *always* mean it is your last attempt; it *might* mean that it is your last attempt for **that version** of the problem. If a "Similar Exercise" button appears, that means you are still allowed to attempt that problem again!
- You can print homework assignments by selecting the Print link in the "Question Help" pulldown in the problem window. You will be given the option of printing either the active question only or the entire assignment.
- I strongly recommend that you write out any work you do while completing homework assignments. Since your quizzes/exams will be mostly paper-and-pencil , it is a good habit to establish while doing the homework. Also, this allows for easy review of your work when you are studying for exams.
- After the due date for an assignment has passed, you can no longer view it through the "Homework" link. Instead, you will need to go to the "Gradebook" link. From there, you will see a Review link for each of the graded assignments. Clicking on this link will allow you to see a list of the assignment questions, as well as whether you received full credit (indicated by a green check), no credit (indicated by a red x), or partial credit (indicated by both a check and x) for each question that you attempted.

Getting Help With Assignments
- Each homework problem will have a variety of links in the "Question Help" pulldown menu. Some will allow you to view an "Animation" or "Video" about the topic at hand. The "Textbook" link will take you to the section of the ebook that covers the material pertaining to the specific problem. **WORD OF WARNING: Becoming dependent on the "Help Me Solve This" and "View an Example" links will lead you into a false sense of security.** If you have to use those buttons on every problem, you are not really learning how to do it. You will have wonderful homework grades and then you will take a quiz or exam and your world will come crashing down, because there are no help buttons.
- The "Ask My Instructor" link allows you to email Ms. Ayers with a link to your exact problem (problem specifics sometimes vary from student to student). Clicking the "Ask My Instructor" link and just saying "I don't know how to do this" will <u>not</u> be acceptable. You need to attempt to explain what you tried and where you are having an issue.
- Please be aware that if you send Ms. Ayers an email with very little time left before the assignment is due, there is a good chance you will not get a reply before the assignment closes. Don't wait until the last minute to do your homework!