

MATH 116C

College Algebra

Summer 2022

Instructor: Mrs. M. Jackson

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I can be reached primarily by email which I will check regularly. You can expect a response within 24 hours. Messages received after 9:30 pm will be read the next day.

Office Hours: I will have virtual office hours throughout the week on an appointment basis. I have availability on Mondays through Thursdays from 10:00 am to 2:00 pm. All times are in the Central Time Zone. Students can schedule appointments via my calendly link:

<https://calendly.com/michelle-jackson-wku-math>

Appointments can also be made through Blackboard using the "Virtual Office Hours" link.

Pre-Requisites: Students should have mastered high school Algebra I and II and have a satisfactory score on the Math Placement Exam

Course Description: This course satisfies the Colonnade Quantitative Reasoning requirement.

It is intended to familiarize you with the fundamentals of College Algebra. Topics include functions, analysis of graphs, and logarithms. After completing MA 116C, students will be able to use fundamental mathematical reasoning principles; use graphical, symbolic, and numeric methods to solve practical problems; and interpret information presented in tables and graphical displays.

Learning Objectives: This course fulfills the Quantitative Reasoning requirement in the Foundations category of WKU's Colonnade program. As part of that program, Math 116 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.

Course Sites:

1. <http://www.pearsonmylabandmastering.com/northamerica/?cc>

This site will be used for completing online course work only. The average on this site does not take into consideration offline assignments. Please refer to Blackboard for semester average.

2. https://blackboard.wku.edu/webapps/portal/execute/tabs/tabAction?tab_tab_group_id= 23 1

This is a link to Blackboard which can also be accessed from the WKU homepage.

Text and Required Materials:

1. Regular, reliable internet access
2. Access to the MyLab & Mastering website (**Note:** you will receive access to this site through Blackboard.) Please read this entire section and do not purchase anything before attending class,
3. Each student will need a TI-83 or TI-84 (non CAS) graphing calculator for use in class and for assignments/quizzes/tests. Lecture demonstrations will be done exclusively with the TI-84.

First Day Inclusive Access:

Some or all required materials for this class are delivered through the First Day Inclusive Access program. The First Day program provides access to required materials automatically, typically through one or more links within Blackboard. For more information and FAQs go to customercare.bncollege.com

While I do not recommend that you do so, you may choose to opt-out at any time within fourteen (14) days of the start of your class utilizing the First Day portal, and this is the only official way to opt-out. Keep in mind that you will then be responsible for purchasing your course materials at the full retail price.

Course Design Overview: Many students assume that a web course will be easier than a face-to-face class. However, the assignments and expectations are the same as those in a face-to-face class but without the in-class discussion and explanation. In order to succeed in this class, you must be very self-motivated. You will need to manage your time well and keep up with all due dates on your own. I have provided a course calendar to help you stay on track but it is up to you to devote the time and attention to this course that is needed to be successful. If you do fall behind, it can be very difficult to catch up; if you miss deadlines there are no "make-up" assignments available. Be sure to check Blackboard and your WKU email daily for announcements, course documents and homework assignments

NOTE: All missed exams and assignments will be given a grade of 0. MyLab homework assignments will have a 1-day late submission grace period each week with a penalty of 10% reduction in grade.

Exams must be taken on the date/time period they are scheduled for!!! The only exceptions will be for University-approved activities for which documentation has been provided to the instructor in advance. The instructor will evaluate unexpected illness or unforeseen catastrophic circumstances on a case-by-case basis and determine whether a make-up is appropriate. Every effort must be made by the student to notify the instructor as soon as possible in these cases.

Course Grade: Your course grade will be based on MyLab homework assignments and 5 unit exams. The grade you receive in this course will be determined by the following:

Exams	60%
Homework	40%

Final grades will be assigned as follows:

100-90% A 89-80% B 79-70% C 60-69% D Below 60% F

Under no circumstances will a student with missing exams or homework be considered for "rounding up" a borderline grade. **Emails pleading for extra credit opportunities and/or mercy regarding final grades will not be answered.**

Student Accessibility Resource Center (SARC): "In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. The phone number is 270-745-5004 [270-745-3030 V/TTY] or email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center."

Title IX Misconduct/Assault Statement: Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's **Title IX Sexual Misconduct/Assault Policy** (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and

Discrimination and Harassment Policy (#0.2040) at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Getting Started: Log into your Blackboard course site to find the following links.

1. **"Course Materials" link:** This is where the MyLab & Mastering code will be revealed so you can get registered.
2. **"MyLab & Mastering" link:** This is where you enter the course.
3. **Announcements:** This is where you will find any announcements regarding the course.
4. **Homework:** This is where you will complete homework assignments for all units.
5. **Study Plan:** This is an individualized plan that provides extra practice on concepts you are having difficulty with. **This is not part of your course grade and is therefore not required.**

6. **Gradebook:** This shows your results for assignments completed only in MyMathLab. It does not reflect offline assignments or the fact that the final course grade is weighted. **Please refer to Blackboard for your actual course grade.**

7. **eText Contents:** All chapters of the textbook are displayed here. You can access the video lectures and the multimedia e-text for each section here. First, select the chapter you wish to work in (Chapter 2) and then select the section (section 2.1). You should now see links for the video and textbook.

Completing Homework Assignments

Click on an assignment (Section 1.1 for example). This assignment has 13 questions. There are links at the bottom of each problem screen that offers resources to assist you in solving the problem.

- **Help Me Solve This** is an interactive tutorial which will have you input responses as it explains the concept. After you enter your response, you will need to click "Check Answer" to see if you are on the right track. When you are finished, click "Close" to be directed back to the homework assignment.
- **Get More Help: Ask My Instructor** sends me an email of the actual problem you are working on. Make sure to include a message explaining your question.

Homework can be completed in multiple sittings. Make sure to save your responses and you can pick up where you left off up until the due date. Make sure you pay attention to the directions on how answers should be entered. **Scoring is based on you entering your answer in the format requested.**

Completing Exams

Click on the assignment (Exam #1). This window also tells you how much time you have for the exam and there is a tutorial on how to enter your answers that can be viewed before beginning. When you are ready to begin, click the "Start Test" button.

Each question is displayed individually and you will need to enter your response. Click the left/right arrows to move from one problem to another. When you are finished, click "Submit Test".

Schedule: Weeks will run from Monday – Sunday for homework assignments with the exception of week 5 as the last day of class is scheduled for Thursday, August 4th. Each week's schedule will be posted on Blackboard along with the guided notes, video lectures, assignments, and exams.

Course Outline:

Unit 1: Graphs, Functions & Models (Chapter 1)

- 1.1 Introduction to Graphing
- 1.2 Functions and Graphs
- 1.3 Linear Functions, Slope and Applications
- 1.4 Equations of Lines and Modeling
- 1.5 Linear Equations, Functions, Zeros & Applications
- 1.6 Solving Linear Inequalities

Exam 1

Unit 2: More on Functions (Chapter 2)

- 2.1 Increasing, Decreasing & Piecewise Functions; Applications
- 2.2 The Algebra of Functions
- 2.3 The Composition of Functions
- 2.4 Symmetry
- 2.5 Transformations

Exam 2

Unit 3: Quadratic Functions and Equations; Inequalities (Chapter 3)

- 3.1 The Complex Numbers
- 3.2 Quadratic Equations, Functions, Zeros & Models
- 3.3 Analyzing Graphs of Quadratic Functions
- 3.4 Solving Rational Equations & Radical Equations
- 3.5 Solving Equations & Inequalities with Absolute Value

Exam 3

Unit 4: Polynomial and Rational Functions (Chapter 4)

- 4.1 Polynomial Functions & Modeling
- 4.2 Graphing Polynomial Functions
- 4.3 Polynomial Division; The Remainder & Factor Theorems
- 4.4 Theorems About Zeros of Polynomial Functions
- 4.5 Rational Functions
- 4.6 Polynomial and Rational Inequalities

Exam 4

Unit 5: Exponential and Logarithmic Functions (Chapter 5)

- 5.1 Inverse Functions
- 5.2 Exponential Functions & Graphs
- 5.3 Logarithmic Functions & Graphs
- 5.4 Properties of Logarithmic Functions
- 5.5 Solving Exponential & Logarithmic Equations

Exam 5