MATH 116 – A01: College Algebra
Western Kentucky University – Summer 2018

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Office: COHH 3105 **Classroom:** COHH 3117
Office Hours: By Appointment **Class Times:** MTWRF 8:00 – 9:40 a.m.

Course Description: 3 Credit Hours - Graphing and problem solving are integrated throughout the study of polynomial, absolute value, rational, radical, exponential, and logarithmic functions.

Learning Objectives: MATH 116 fulfills the Quantitative Reasoning requirement in the Foundations category of WKU's Colonnade program. Successful 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.

Prerequisites: At least one of the following criteria must be met to enroll in MATH 116:
- Math ACT score of 22 or better
- Math SAT score of 510 or better
- 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
- A score of 50 or better on the COMPASS (College Algebra) within the last year
- Completion of DMA 096C with a grade of C or better

Textbook: *A Graphical Approach to College Algebra*, 6th Edition, 2015, Hornsby, Lial, Rockswold.

Materials: You should have pencils (not pens) and a three-ring binder with plenty of loose-leaf paper (not spiral) and graph paper. The binder will help you keep all of your handouts and work organized throughout the term. In addition, all assignments must be completed in pencil on loose-leaf (not spiral) and / or graph paper.

Internet Access: You must have regular and reliable access to your WKU email account and BlackBoard. Lack of internet access or failure to login to these systems may not be used as an excuse for failing to obtain materials or turn in homework assignments. You should check your WKU email account at least once per day as all announcements for the class will be sent there.

Calculator: You will need a graphing calculator from the TI-83 / TI-84 family. These will be the only calculators allowed on quizzes and exams. These calculators must not have any type of computer-assisted algebra software (CAS) capabilities. All memory will be cleared before quizzes and exams.

Attendance and Absences: Attendance and participation in class is crucial to your success in this course. If you miss a class for any reason, you will be responsible for obtaining any materials and/or information from other students in the class, *not from the instructor*. Excessive absences (more than two) will negatively impact your grade as detailed later in this document.

Instruction: This course will employ a variety of teaching techniques including problem-based and inquiry-based learning. This means that you will sometimes be asked to attempt to solve problems and answer questions on your own or in small groups without receiving any direct instruction or seeing an example in advance. This will hopefully lead us to a rich mathematical discussion about the nature of the problem, the challenges to solving it, some tools that might help us, some ideas that don't work out, and ultimately (hopefully) a solution. The goal is that you will be discovering mathematics in much the same way that a mathematician does, by solving problems, conjecturing, experimenting, exploring, creating, and communicating. Instead of giving you rules and facts to memorize, or showing you a recipe that provides a clear, smooth path to a solution, I will be guiding and mentoring you via problems and discussions through an adventure in mathematical discovery. Your experience in this class will likely be a departure from the way you have interacted with mathematics in the past, and at times you may become frustrated and discouraged. I encourage you, however, to keep an open mind and trust the process. After all, if the way that most of us encountered mathematics in the past were perfect, we would all be mathematics experts by now!

Exams: There will be four exams in this course, including the final exam. Each exam will be cumulative (that's just how math works) and will be worth 100 points. Each of the first three exams must be taken in the Math Testing Center (MTC) outside of our normal class time on the dates listed below. The final exam will begin at 8:00 a.m. on our last day of class.

Exam Dates: Exam 1: June 12/13; Exam 2: June 20/21; Exam 3: June 28/29; Exam 4: July 6

Quizzes: There will be two short quizzes given each week (10 total). Each quiz will be worth 5 points.

Determination of Course Grade: There will be a total of 450 points possible in this class. Letter grades will be assigned as follows.

Total Points	0 – 269	270 – 314	315 – 359	360 – 404	405 – 450
Letter Grade	F	D	C	B	A

Attendance and Participation: Because this will employ elements of cooperative, inquiry-based learning, small group and whole class participation is an essential part of the experience for both you and your classmates. Consequently, your absences will hurt not only you, but also your classmates. Excessive (more than two) absences from class will result in a lowering of your overall grade in the course as follows:

Number of Absences	0 – 2	3	4	5	6
Overall Grade Lowered By	None	One Letter	Two Letters	Three Letters	Four Letters

The only exceptions to this policy will be those absences that are caused by University approved activities or religious observances for which documentation has been provided to the instructor in advance. All other absences (sickness, death in the family, grandmother in hospital, vacation, car issues, and so on) will not be excused. You get two free absences to cover these unexpected events. Beyond that, you may need to investigate other options (withdrawal, medical withdrawal, incomplete, etc.).

Note: Failure to participate fully in class or use of unauthorized portable electronic devices (cell phone, tablet, etc.) during class will also result in a lowering of your overall course grade. More specifically, if you are noticed to be using a cell phone, etc., you will receive one-half of an absence for that day!!

Daily Homework Assignments: Homework will be assigned nearly every class period, and will be due at the beginning of the very next class period. In general, your homework will be checked during the first 10 minutes of class, but it may be collected and graded at any time. Late homework will not be accepted for any reason. Homework assignments will be graded as either satisfactory or unsatisfactory based on a variety of factors including, but not limited to, completeness and correctness. Completing these assignments before class is a critical component of the learning design of the course. Excessive (more than two) unsatisfactory homework assignments will result in a lowering of your overall grade in the course as follows:

Unsatisfactory Assignments	0 – 2	3 – 4	5 – 6	7 – 8	9 +
Overall Grade Lowered By	None	One Letter	Two Letters	Three Letters	Four Letters

Understanding Course Grades:

A The student consistently demonstrates competencies that signal that s/he has mastered the mathematical topics covered in the course. This qualification includes a much deeper level of understanding than that expected for satisfactory progress beyond this course. The student demonstrates this level of understanding by consistently going beyond the information explicitly presented by the course instructor to completing new kinds of tasks, applying his/her knowledge to new contexts, and synthesizing dissimilar concepts and ideas.

B The student occasionally demonstrates the competencies and knowledge transfer abilities that characterize the mathematical proficiency of A-level students, but at times is limited to learning well just the information explicitly presented by the course instructor. The student shows evidence of better-than-acceptable level of mathematical proficiency in the topics studied and a deeper level of understanding than that expected for satisfactory progress beyond this course.

C The student consistently demonstrates good levels of performance on tasks measuring straightforward learning of course content, but rarely completes knowledge transfer tasks successfully. The student shows evidence of an acceptable level of mathematical proficiency of the topics studied and shows evidence of understanding at a level sufficient for satisfactory progress beyond this course.

D The student does not consistently show acceptable levels of performance, even on tasks measuring content explicitly presented by the course instructor. Although the student may have mastered some of the course content, and may show signs of considerable effort, the student is not prepared to progress beyond this course at this time.

F The student shows a profile similar to that of the D student and appears to be unprepared to progress beyond this course at this time. The student may exhibit lack of effort, profound and persistent misconceptions, and/or the failure to master several of the course topics.

Electronic Devices: All cell phones and other electronic devices must be turned off and properly stowed during class. Failure to comply with instructor requests involving electronic devices will negatively impact your grade as detailed in the *Attendance and Absences* section of this syllabus.

Academic Dishonesty: Students who commit any act of academic dishonesty will receive from the instructor a failing grade in the course without possibility of withdrawal. The instructor will also present the case to the Office of Student Conduct for disciplinary sanctions.

ADA Statement: 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. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via 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: Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) and Discrimination and Harassment Policy (#0.2040) at

> https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf
> 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.

Withdrawal Dates: The last day to withdraw from this course without paying a fee and without receiving a grade is Wednesday, June 6, 2018. The last day to withdraw from this course with a W, or to change from credit to audit, is Tuesday, June 19, 2018.

Math Help Lab: The department of mathematics provides a free help lab located in COHH 2124. Hours for the lab and specific tutor schedules are posted and will be announced in class or by email.

Disclaimer: The instructor reserves the right to change, alter, modify, or tweak anything in this document at any time for any reason.