Campbellsville University

MTH 111, Section 05

Fall 2016 Course Syllabus

TITLE: MTH 111, College Algebra (3 credit hours)

Meeting Times: Tue./ Thur. 8:00 – 9:15; 8/30/16 – 12/8/16; Carter Hall Rm. 404

Instructor: Troy W. Young

E-mail Address: twyoung@campbellsville.edu

Office: 316 Carter Hall

Office Hours: Mon 12:00 – 3:00; Wed. 8:00 – 9:00, 1:00 – 3:00; Tue/Thur. 1:00 – 2:00

COURSE DESCRIPTION: This course is designed to extend knowledge of high school algebra to more advanced topics. Topics included in this course are polynomials, rational expressions, solving linear, quadratic, higher degree polynomial, and exponential equations, as well as, equations involving radicals will be included. Functions, coordinate geometry, several conic section curves, and applications of these concepts are also included in the course. Prerequisites: Two years of high school algebra or MTH 100 with a "C" or better in these courses. This course does not count toward the Math major, but is required for a Math major with teacher certification.

TEXT: College Algebra, 8th Edition by Kaufmann and Schwitters, Brooks/Cole, Cengage Learning, 2013. ISBN-13 978-1-111-99036-7

OBJECTIVES:

1. The student will demonstrate the ability to think logically and critically.
2. The student will be able to communicate algebraic concepts in oral and written form.
3. The student will demonstrate quantitative literacy by interpreting, planning and solving real world problems.
4. The student will demonstrate knowledge of the role of ethics in mathematical pursuits.
5. The student will recognize different branches of mathematical study and their connections.
6. The student will demonstrate knowledge of algebraic skills for successful study of higher level mathematics.

General Education Student Learning Outcomes will be assessed with written exams, quizzes, and assigned problems.

COURSE REQUIREMENTS:

Attendance Policy: Each student is expected to be present at all class meetings. As with any mathematics course, it is important the student understand the concepts as they are presented. Roll will be taken at each class meeting. *Two tardies will be converted to one absence.* In the event that a student misses class, that student is still expected to obtain the assignment and complete any assigned work. Being absent is not an excuse for not having the assignment. *This course will be in compliance with the University's Undergraduate Student Attendance Policy.*

Classroom Behavior: Students must bring their textbook, pen or pencil, and paper to every class meeting. Each student is expected to conduct themselves in an acceptable manner. Courtesy toward the Instructor and other students in the class is essential. Be prepared to stay in the classroom during the ENTIRE class period, failure to adhere to this requirement will result in the student being considered absent from class. Students ARE NOT allowed to leave the classroom once testing has begun unless they are prepared to turn in their test. Students are also expected to arrive on time, stay awake during class, not engage in social conversation during the lecture, and to participate when called upon. Failure to behave properly can result in the student being permanently dismissed from class.

Testing and Grading: There will be three exams worth 100 points each and one comprehensive final worth 200 pts. Some homework will be collected and graded, and quizzes will be administered periodically. The combined quiz/ homework average will be worth 100 points, and will be included in your final grade (600 total points possible). Completing the assignments will be critical to your success in this course. When homework is not collected, solutions to HW problems will be made available after completion. It is your responsibility to complete the assigned problems, ask questions, and get help outside the classroom when you need it. All make-up exams must be taken within one week of the date of the test. The student must make an appointment with the instructor to take a make-up exam. The grading scale is as follows:

PERCENT	GRADE
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 59%	F

Instructional Methods: Students will be encouraged to take notes as concepts are covered and examples are worked in class. Students may be asked to contribute while a problem is worked on the board. Illustrations will also be shown using various classroom technologies. Practice problems will be assigned to complete outside of class time following explanation/lecture in the class.

Academic Integrity: Cheating will not be tolerated in this course. The first time a student is determined to be cheating on an exam or quiz a grade of zero will be assigned to that quiz or exam. The second time the student is caught cheating on a quiz or exam the course grade will automatically become an F regardless of past or future performances in the course.

Electronic Devices, Programmable Devices, and Calculators: *Each student is required to place cell phones/electronic devices on his/her desk facedown or in his/her purse or back pack.* Non-graphing calculators will be permitted for use on daily work and exams. Use of a computer or a graphing calculator is not permitted on any exam. *Telephones cannot be used as calculators.* Pagers, I-Pods, I-Pads, and similar devices are prohibited in the classroom. All electronic devices (cell phones, watches, etc.) must either be turned OFF or placed on SILENT mode during class time.

Disability Statement: Campbellsville University is committed to reasonable accommodations for students who have documented physical and learning disabilities, as well as medical and emotional conditions. If you have a documented disability or condition of this nature, you may be eligible for disability services. Documentation must be from a licensed professional and current in terms of assessment. Please contact the Coordinator of Disability Services at 270-789-5192 to inquire about services. If you are already in possession of documentation to show the Instructor, please do so and you will receive the Departmental Guidelines for our students with disabilities.

Title IX: Campbellsville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires all responsible employees, which includes faculty members, to report incidents of sexual misconduct shared by students to the University's Title IX Coordinator.

Title IX Coordinator
Terry VanMeter 1 University Drive
UPO Box 944
Administration Office 8A
Phone - 270-789-5016
Email — twvanmeter@campbellsville.edu

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: www.campbellsville.edu/titlelX

Supplemental Services: It is recommended that students take advantage of the free tutoring offered in the Campbellsville University Badgett Academic Support Center (BASC)

Campus Security Phone Numbers:
CELL: 270-403-3611

COURSE OUTLINE:

Chapter 0: Review
Exponents
Polynomials
Factoring Polynomials
Rational Expressions
Radicals
Relationship Between Exponents and Roots
Complex Numbers

Chapter One: Equations, Inequalities, and Problem Solving
Linear Equations and Problem Solving
Equations and Applications
Quadratic Equations
Applications of Linear and Quadratic Equations
Miscellaneous Equations
Inequalities
Quadratic Inequalities and Inequalities Involving Quotients
Absolute Value Equations and Inequalities

Chapter Two: Coordinate Geometry
Coordinate Geometry
Graphing Techniques: Linear Equations and Inequalities
Determining the Equation of a Line

More on Graphing
Circles, Ellipses, and Hyperbolas

Chapter Three: Concept of a Function
Concept of a Function
Linear Functions and Applications
Quadratic Functions and Applications
Transformations of Some Basic Curves
Combining Functions
Direct and Inverse Variation

Chapter Four: Polynomial Functions
Dividing Polynomials and Synthetic Division
Remainder and Factor Theorems
Polynomial Equations
*Graphing Polynomial Functions
*Graphing Rational Functions

Chapter 5: Exponential and Logarithmic Functions
*Overview

*As time permits