

**Hagerstown Community College
Master Syllabus**

COURSE: MAT 101 College Algebra (3 Credits)

INSTRUCTORS: P. Kessler, C. Lewis, J. Mulbay, L. Wadel, R. Westmeyer, Essence

SEMESTER/YEAR: Fall 2019

COURSE DESCRIPTION:

This is a college-level mathematics course consisting of the study of algebraic functions, including linear, quadratic, polynomial, root, and rational functions, as well as their applications. Problems will be solved through analytical, numerical and graphical approaches with an emphasis on application problems. Additional topics include complex numbers, inverse functions, and operations with functions, compositions of functions, solving systems of equations, inequalities, and circles.

Prerequisites: MAT 100 or MAT 090 or appropriate scores on placement tests, or consent of the math department.

TEXTBOOK: (MyMathLab access code required)

Algebra & Trigonometry, 3rd Edition, Kirk Trigsted, 2019

MyMathLab access code ISBN # 9780134751597

STUDENT LEARNING OUTCOMES:

GENERAL EDUCATION OUTCOMES:

Upon successful completion of this course, students will learn how to:

1. Apply mathematical methods involving arithmetic, algebra, geometry, and graphs to solve problems.
2. Represent mathematical information and communicate mathematical reasoning symbolically and verbally.
3. Interpret and analyze numerical data, mathematical concepts, and identify patterns to formulate and validate reasoning.

COURSE LEARNING OUTCOMES:

Upon successful completion of this course students will be able to:

1. Use computational techniques and algebraic skills essential for success in an academic, personal, or workplace setting. (Computational and Algebraic Skills)
2. Use visualization, special reasoning, as well as geometric properties and strategies to model and solve linear equations and inequalities algebraically and graphically. (Geometric and Algebraic Skills)
3. Use and apply topics for the course to solve application problems. (Application Skills)
4. Communicate and Understand mathematical statements, ideas and results, both verbally and in writing, with the correct use of mathematical definitions, terminology and symbolism. (Communication Skills)

Total Hours of Coursework:

To earn one academic credit at HCC, students are required to complete a minimum of 37.5 clock hours (45 fifty-minute “academic” hours) of coursework per semester. Those hours of coursework may be completed through a combination of hours within the classroom and hours outside the classroom. Certain courses may require more than the 37.5 minimum hours of coursework per credit.

For most classes, students should expect to do at least 2 hours of coursework outside of class for each hour of in-class coursework.

Credit Hour to Clock Hour Calculation:

Direct Faculty Instruction: 1 hour/week/credit for 15 weeks; 50 min = 1 classroom hour
(50 min x 3 credits x 15 weeks) = 2250 minutes = 37.5 hours

Student Work Outside the Classroom: 2 hours/week/credit for 15 weeks
(2 Hours x 3 credits x 15 weeks) = 90 hours

Assignments	Direct Faculty Instruction (In Class) 37.5 Hours. Require	Student Work -(Out of Class) 90 Hours. Required
Lecture	37.5 Hours	n/a
4 Exams (3 Tests and Final Exam) All Proctored		12 Hours Prep 6 Hours Completion
Quizzes		20 Hours
Homework Assignments		40 Hours
Other Instructor Material		12 Hours

All tests and the final exam will be administered in a proctored setting either in the Academic Testing Center (or an approved accredited testing facility) or with the instructor directly.

Services for Students with Disabilities: Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as possible. Students may contact a DSS staff member for an appointment at dss@hagerstowncc.edu or at 240-500-2530.