

**Hagerstown Community College
Master Syllabus**

COURSE: MAT 101 College Algebra (3 Credits)
INSTRUCTOR: **PHONE:**
OFFICE HOURS:

COURSE DESCRIPTION:

This course is a problem solving approach to the nature of mathematics as a logical system. The structure of the number system is developed axiomatically and extended by logical reasoning to cover essential algebraic topics: algebraic expression, functions (including polynomial, rational, exponential, logarithmic and trigonometric), and theory of equations. Total of 60 contact hours.
Prerequisite: MAT 100 or equivalent score on placement exam.

TEXTBOOK: (Text not required but must have MyMathLab access code)

eText Reference Book for Algebra & Trigonometry, 2nd Edition, Kirk Trigsted, 2015
ISBN # 0133975096 (Includes book and MyMathLab software)

Or **MyMathLab access code ISBN # 0321923758**

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
 $(50 \text{ min} \times 3 \text{ credits} \times 15 \text{ weeks}) = 2250 \text{ minutes} = 37.5 \text{ hours}$

Student Work Outside the Classroom: 2 hours/week/credit for 15 weeks
 $(2 \text{ hrs} \times 3 \text{ credits} \times 15 \text{ weeks}) = 90 \text{ hours}$

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

Hybrid	Direct Faculty Instruction (In Class) 37.5 Hrs. Required	Student Work (Out of Class) 90 Hrs. Required
Lecture	18.75 Hours	
Additional e-text reading, communication, notes, videos, email, etc.	18.75 Hours	
4 Exams (3 Tests and Final Exam) All Proctored		12 Hrs. Prep 6 Hrs. Completion
Quizzes		20 Hrs.
Homework Assignments		40 Hrs.
Other Instructor Material		12 Hrs.

WEB	Direct Faculty Instruction (WEB) 37.5 Hrs. Required	Student Work (Out of Class) 90 Hrs. Required
Online communication, orientation session, notes, videos, e-text, email, discussions, etc.	37.5 Hours	
4 Exams (3 Tests and Final Exam) Tests and Final Exam are Proctored 3 Concepts Checks		12 Hrs. Prep 6 Hrs. Completion 2 Hrs. Prep & Completion
Quizzes		20 Hrs.
Homework Assignments		40 Hrs.
Other Instructor Material		10 Hrs.

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.