

COLLEGE ALGEBRA

MEETING INFORMATION

Meeting Times	MTThF 10:30 - 12:10
Location	Hirt 209
Website	math.mercyhurst.edu/~lwilliams/math111
Prerequisite(s)	ALEKS score of 46 (freshmen only)

Instructor	Lauren Williams, PhD
Email	lwilliams@mercyhurst.edu
Office Phone	(814) 824-2226
Office	Old Main 404
Office Hours	Mon 9:30 - 10:15 Thurs 12:30 - 1:30 Fri 9:30 - 10:15 and by appointment

COURSE DESCRIPTION

This is a course in algebra, similar to high school courses in algebra except that the pace will be faster. We will begin with some review of real-number concepts, and proceed into linear equations in one variable, mathematical modeling, polynomials, rational expressions, functions, lines, exponents, and radicals, equations, inequalities, and polynomial and rational functions.

COURSE OBJECTIVES

By the end of this course, you will have acquired many mathematical tools which include the ability to:

- identify, distinguish, perform algebraic operations and find solutions to equations using the integer, rational, real and complex number systems.
- use common algebraic methods to solve linear, quadratic, polynomial, radical, and absolute value equations and inequalities.
- translate the written problem and create algebraic models to solve real-life problems.
- use and create algebraic functions.
- demonstrate your understanding of introductory language of mathematics through the use of proper mathematics notation.

REQUIRED MATERIALS

Intermediate Algebra for College Students, 7 Edition, by Robert Blitzer. Be sure to check the edition when purchasing your textbook; other editions have similar material, but the assigned problems may be different. No other materials are required for this class.

COURSE CALENDAR

May	22	1.1, 1.2
	23	1.3, 1.4
	25	1.6
	26	2.1, Quiz I
	29	No Class - Memorial Day
	30	2.2, 2.3
June	1	2.4, Review
	2	Exam I
	5	2.5, 3.1
	6	4.1, 4.2
	8	4.3, 5.1
	9	5.2, Quiz II
	12	5.3, 5.4
	13	5.5, 5.6
	15	5.7, Review
	16	Exam II
	19	6.1, 6.2
	20	6.3, 6.4
	22	6.6, 7.1
	23	7.2, Quiz III
	26	7.3, 7.4
	27	7.5, 7.6
	29	7.7, Review
	30	Exam III

GRADING

75%	Average of Exam Grades						
25%	Average of Quiz Grades						
F	D	D+	C	C+	B	B+	A
0-59	60-64	65-69	70-77	78-83	84-89	90-93	94-100

CALCULATORS

You are not required to purchase a calculator for this course, and you will not be permitted to use a calculator or other electronic device on any quizzes or exams. You are strongly encouraged to avoid using a calculator while working on homework.

QUIZZES AND EXAMS

Every Friday, we will have either a quiz or an exam. Both will be based on the suggested homework problems. All exams are cumulative; each exam will include some material from the previous exams. Use of notes, textbooks, calculators, electronic devices, or other materials will not be permitted during an exam. The exact topics on each quiz and exam will be announced in class.

If you need to miss class during a scheduled exam for a documented, excused reason (illness, family emergency, athletics), you must schedule a time to retake any exam within one week of the day the exam was given in class.

HOMWORK

When we finish a section in the book, you should immediately begin working on the homework problems, listed in this syllabus. Stay up to date with homework, and get help if you cannot understand a problem after trying it on your own. Do not ignore a problem that you are struggling with. A weak spot in this foundation will lead to a bigger problem in the future.

Your work will not be collected. However, actually working through these problems is the key to your success in this class. Mathematics can only be learned through practice.

If you are having trouble with a topic, please come talk to me during office hours, ask questions in class, seek help from a classmate, or request a tutor. You are expected to try to work on all problems on your own first; when coming to my office, be prepared to show me what you've already tried.

SUGGESTED HOMEWORK PROBLEMS

1.1	17, 21, 23, 25, 29, 31, 37, 47, 51, 53, 57, 65, 67, 71, 77
1.2	1, 3, 11, 59, 61, 71, 75, 77, 83, 85, 89, 93, 97, 113, 121, 123, 125, 129
1.3	1, 3, 5, 7, 9, 11, 15, 19, 25, 57-60
1.4	1, 3, 7, 11, 15, 21, 23, 25, 27, 33, 59, 63, 65
1.6	17, 21, 23, 27, 35, 37, 39, 47, 55, 61, 71, 81, 87, 97, 103, 109, 111, 119, 121, 123
2.1	1, 3, 7, 9, 13, 15, 21, 25, 31
2.2	3, 5, 7, 11, 13, 19, 23, 25, 27, 29, 31, 35, 37, 73
2.3	1, 3, 5, 7, 11, 15, 19, 23, 27, 31, 35, 39, 43, 51, 53
2.4	1, 7, 9, 13, 15, 17, 21, 25, 27, 31, 35, 39, 41, 45, 69, 75
2.5	3, 7, 11, 15, 21, 25, 27, 29, 35, 41, 49, 51, 57, 61
3.1	1, 3, 5, 7, 17, 25, 31, 33, 41, 43, 47, 53, 59, 63, 67, 69, 81, 87, 89
4.1	1, 7, 11, 13, 19, 21, 25, 31, 37
4.2	1, 3, 7, 11, 17, 21, 23, 27, 31, 33, 35, 39, 45, 51
4.3	5, 9, 13, 19, 27, 33, 39, 43, 45, 53, 55, 63, 67, 71
5.1	3, 5, 9, 11, 13, 15, 21-24, 25-28, 29, 33, 37, 41, 45
5.2	3, 5, 9, 13, 19, 23, 29, 33, 35, 37, 55, 61, 75, 91, 93, 95, 99, 107
5.3	3, 9, 13, 19, 21, 27, 31, 33, 45, 49, 53, 55, 59, 61, 67
5.4	1, 5, 11, 15, 17, 21, 29, 31, 33, 37, 41, 45, 47, 51, 59, 61, 69, 73
5.5	1, 7, 11, 19, 23, 27, 39, 49, 55, 63, 75, 81, 87
5.6	1, 3, 7, 9, 15, 21, 27, 33, 37, 43, 53, 59
5.7	1, 3, 5, 7, 9, 13, 15, 21, 27, 31, 35
6.1	3, 9, 13, 27, 33, 37, 43, 49, 51, 55, 61, 65, 73, 77, 81, 85, 89
6.2	3, 7, 10, 15, 17, 21, 27, 31, 35, 41, 47, 55, 61, 67, 71
6.3	1, 7, 9, 13, 21, 27, 33, 39, 43, 47, 49
6.4	3, 13, 17, 21, 27, 33, 35, 43, 47
6.6	3, 7, 11, 13, 17, 21, 27, 35, 39, 41, 47
7.1	1, 3, 5, 9, 17, 21, 33, 35, 39, 45, 47, 51, 55, 81, 85, 89
7.2	3, 5, 7, 13, 17, 23, 27, 31, 37, 39, 45, 49, 55, 59, 67, 75, 81, 85, 89, 97, 103
7.3	1, 3, 9, 11, 15, 19, 23, 29, 41, 47, 52, 57, 63, 67, 73, 77, 83, 85, 87
7.4	1, 5, 9, 11, 17, 21, 25, 33, 35, 43, 47, 59, 67, 71, 75
7.5	1, 3, 7, 13, 17, 19, 25, 29, 37, 39, 45, 53, 61, 65, 75, 81, 97, 103
7.6	3, 7, 9, 13, 19, 21, 23, 27, 33, 39, 43, 45
7.7	1, 7, 13, 17, 19, 23, 29, 33, 41, 51, 57, 85
