



SYLLABUS

Course Title	Modeling and Applications (College Algebra for the Lincoln campus)
Course Number	MTH 108
Number of Credits	3 semester credits
Course Dates	1/14/19 - 3/9/19
Instructor	David Grothen
Email Address	david.grothen@doane.edu or dgrothen@lps.org
Office Hours/Availability	Contact by phone, text, or email
Phone Number	402-560-0752
Textbook Information: (e.g. title, edition, publisher, ISBN)	Required: Intermediate Algebra: A Text/Workbook, 9th Edition, Author: Charles McKeague, Publisher: Brooks/Cole. ISBN: 113-310364-2 Optional: Student Solutions Manual
Additional Course Materials	none
Course Description	This is an algebra-based course with an emphasis on practical applications. An examination of real-life models and their applications using algebra as a foundation. Students successfully completing this

	course will effectively use algebra and technology to analyze models of real-world phenomena; effectively read, interpret and analyze problems; and gain quantitative literacy and confidence.
Foundational Area of Knowledge	<p>Mathematical Reasoning</p> <p>Students will work to:</p> <p>analyze and model mathematical situations using a variety of techniques to solve problems effectively</p> <p>communicate a clear understanding of conclusions</p> <p>apply mathematical systems of thinking</p>
Course Learning Outcomes/Objectives	<p>Students will work to:</p> <ul style="list-style-type: none"> Analyze and model mathematical situations using a variety of techniques to solve problems effectively Communicate a clear understanding of conclusions Apply mathematical systems of thinking
Technology Requirements	A scientific calculator that can handle fractions is strongly suggested.

Course Schedule

Week or Module	Topic	Content	Assessments Matched to Learning Outcomes	Due Date & Time
Session 1	Sections 1.1, 1.4, 1.5, and 1.6	Notation, Simple and Compound Inequalities, Real Numbers and their Properties	none	Prep for quiz over session 1 material

Session 2	Sections 2.1, 2.4, 2.5, and 2.6	Linear Equations, Linear Inequalities, Absolute Value Equations, Absolute Value Inequalities	Quiz over Session 1 material at the beginning of class	Prep for quiz over session 2 material
Session 3	Sections 3.1, 3.2, 3.3, and 3.4	Rectangular Coordinate System, Slopes and Equations of Lines, and Inequalities in two Variables	Quiz over Session 2 material at the beginning of class	Prep for quiz over session 3 material
Session 4	Sections 3.5, 3.6, 4.1, and 4.2	Functions, Function Notation, Systems of Equations in 2 and 3 Variables	Quiz over Session 3 material at the beginning of class	Prep for quiz over session 4 material
Session 5	Sections 4.6, 5.1, 5.2, and 5.3	Systems of Inequalities, Operations with Polynomials	Quiz over Session 4 material at the beginning of class Take home Test #1 handed out	Prep for quiz over session 5 material Test #1 due at the beginning of Session 6
Session 6	Sections 5.4, 5.5, 5.6, and 5.8	Greatest Common Factors, Factoring, and Solving Equations by Factoring	Quiz over Session 5 material at the beginning of class Take home Test #1 handed in at the beginning of class	Prep for quiz over session 6 material
Session 7	Sections 6.1, 6.2, 6.3, and 7.1	Properties, Multiplication, and Division of Rational Expressions, and	Quiz over Session 6 material at the beginning of class	Prep for quiz over session 7 material

		Rational Exponents		
Session 8	No new material		Quiz over Session 7 material at the beginning of class Take home Test #2 handed out	Take home Test #2 returned to instructor within one week.

Grading Assessments

Type of Assessment	Points	Total possible points
Quiz	Each quiz is graded on a 100% scale.	The quiz average is worth 40% of your grade
Take home Tests	Each test is graded on a 100% scale.	The test average is worth 60% of your grade

Grade Scale

A+ = 97-100% A = 94-96% A- = 90-93% B+ = 87-89% B = 84-86% B- = 80-83%
 C+ = 77-79% C = 74-76% C- = 70-73% D+ = 67-69% D = 64-66% D- = 60-63%
 F= 59% or below

Participation Policy	<p>A student is expected to be prompt and regularly attend on-ground classes in their entirety. Regular engagement is expected for on-line courses. Participation in class discussions is an integral part of your grade.</p> <p>Missing 3 or more classes will result in a failing grade for the class.</p>
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Study Time	Expectation of the amount of time the course requires students to spend preparing and completing assignments. Typically, students could expect to spend approximately 12 hours a week preparing for and actively participating in this 8-week 3 credit hour course. This actual time for study varies depending on students' backgrounds.
Late Work	Please consult the instructor to work out a plan for late work.
Submitting Assignments	Assignments will be handed in at the beginning of class
Communication Policy including Assignment Feedback	(State your policy on timeliness of communicating with students and length of time needed before assignments will be graded, e.g. 48 hours.)
Academic Integrity Policy	New Academic Integrity Policy to be released AUTM 2018
Academic Support	Please contact academicsupport@doane.edu https://www.doane.edu/graduate-and-adult/academic-support
Disability Services	https://www.doane.edu/disability-services Doane University supports reasonable accommodations to allow participation by individuals with disabilities. Any request for accommodation must be initiated by the student as soon as possible. Each student receiving accommodations is responsible for his or her educational and personal needs while enrolled at Doane University. Please contact Chris Brady at chris.brady@doane.edu or 402-467-9031 for assistance.
Military Services	https://www.doane.edu/graduate-and-adult/military
Anti-Harassment Policy	http://catalog.doane.edu/content.php?catoid=5&navoid=452
Grade Appeal Process	http://catalog.doane.edu/content.php?catoid=5&navoid=238

Credit Hour Definition	Doane University follows the federal guideline defining a credit hour as one hour (50 minutes) of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks (one semester), or the equivalent amount of work over a different time period (e.g., an 8-week term). This definition applies to courses regardless of delivery format, and thus includes in-person, online, and hybrid courses (combination of in-person and online). It also applies to internship, laboratory, performance, practicum, research, student teaching, and studio courses, among other contexts.
Syllabus Changes	Circumstances may occur which require adjustments to the syllabus. Changes will be made public at the earliest possible time.