COURSE SYLLABUS
MAT162: Algebra I

Course Description

Intermediate Algebra serves as the foundation for calculus and statistics. Topics include real numbers, equations and inequalities in one variable, linear equations and their graphs, functions, and systems of linear equations.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	40/00/80
Prerequisite(s)	None
Co-requisites (s)	None
Course Developer(s)	Robert Galka, M.S.
Date Approved / Last Review	December 2005 / August 2014

Learning Outcomes

- Understand and apply basic terminology and operations of real numbers
- Simplify and solve first order inequalities and equations
- Create mathematical equations from word problems and solve those equations
- Analyze and graph linear inequalities and equations
- Solve systems of linear equations
- Use a scientific calculator to perform numerical operations

Instructional Methods Employed in this Course

- Lecture and reading assignments
- Hands-on exercises
- Exams
- Research
- Student presentations
- Practical application of theory
- Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course

Textbook

Lial, Margaret L., John Hornsby, and A. McGinnis. (2004) Intermediate Algebra, 10th edition. Addison, Wesley, and Longman.

Other Materials

Calculator: Graphing Calculator: Casio FX-9750GII or equivalent graphing calculator

Angel, Allen R.(2000) Intermediate Algebra for College Students, 5th edition. Prentice Hall.

McKeague, Charles and John Garlow. (1999) Intermediate Algebra. Saunders College Publications.

Web Site Readings

www.purplemath.com

www.khanacademy.org

Table/Topics & Assignments

Types of Assignments:

Lecture -
Considered Lecture Hours

Classroom Discussion -
Considered Lecture Hours

In Class Critique -
Considered Lecture Hours

Delivering Oral Presentations -
Considered Lecture Hours

In Class (IC) Exercise -
Considered Lecture Hours

Reading -
Considered Homework, work done outside of class

WebClass lesson (non-online courses) -
Considered Homework, work done outside of class

Lab Work -
Considered Lab Hours

Quiz, Midterm or Final -
Considered Lecture Hours

Week 1						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 1A	Operations on Real Numbers	3.5	--	--	--	
IC EX 1A	Group Activity: Selected Problems from Section 1.1 – Section 1.3	0.5	--	--	10	Week 1
HW 1A	80 Selected Problems from Section 1.1-1.3	--	--	9	20	Week 2
Total Week 1		4	0	9	30	
Week 2						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 2A	Properties of Real Numbers and Linear Equations	3.5	--	--	--	
IC EX 2A	Chapter 1 Group activity pg. 43	0.5	--	--	10	Week2
HW 2A	80 Selected Problems from Section 1.4-Section 2.2	--	--	9	20	Week 3

HW 2B	Group Assignment: Exam Preparation Chapter 1 review exercises odd 1-90. Chapter 1 Test	--	--	2	20	Week 3
Total Week 2		4	0	11	50	

Week 3

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 3A	Discussion	1	--	--	10	
HW 3A	Presentation- Real-life math applications	--	--	4	100	Week 4
EXAM 3A	Exam #1	3	--	--	150	
Total Week 3		4	0	4	260	

Week 4

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 4A	Word Problems	3	--	--	--	
IC EX 4A	Group Activity: Selected Problems from Section 2.3- Section 2.4	0.5	--	--	10	Week 4
HW 4A	80 Selected Problems from Section 2.3, Section 2.4, and Summary Exercises	--	--	9	20	Week 5
HW 4B	Students Presentations	0.5	--	--	--	
Total Week 4		4	0	9	30	

Week 5

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 5A	Linear Inequalities in One Variable	3.5	--	--	--	
IC EX 5A	Chapter 2 Group Activity, pg. 133	0.5	--	--	10	Week 5
HW 5A	80 Selected Problems from Section 2.5 – Section 2.7	--	--	9	20	Week 6
HW 5B	Group Assignment: Exam Preparation. Chapter 2 review exercises odd 1-99. Chapter 2 Test	--	--	2	20	Week 6
Total Week 5		4	0	11	50	

Week 6

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 6A	Discussion	1	--	--	10	

HW 6A	Research Paper - Mathematical Skills for the IT Industry	--	--	6	100	Week 7
EXAM 6A	Exam #2	3	--	--	150	
Total Week 6		4	0	6	260	

Week 7

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Rectangular Coordinate Systems & Lines	3.5	--	--	--	
IC EX 7A	Group Activity: Selected Problems from Section 3.1 – Section 3.3	0.5	--	--	10	Week 7
HW 7A	80 Selected Problems from Sections 3.1-3.3 and Summary Exercises	--	--	9	20	Week 8
Total Week 7		4	0	9	30	

Week 8

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Linear Inequalities in Two Variables and Introduction to Functions	3.5	--	--	--	
IC EX 8A	Chapter 3 Group Activity pg. 215	0.5	--	--	10	Week 8
HW 8A	80 Selected Problems from Section 3.4 & Section 3.5	--	--	9	20	Week 9
Total Week 8		4	0	9	30	

Week 9

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Systems of Linear Equations	3.5	--	--	--	
IC EX 9A	Group Activity: Chapter 4	0.5	--	--	10	Week 9
HW 9A	80 Selected Problems from Section 4.1 – Section 4.3	--	--	9	20	Week 10
HW 9B	Group Assignment: Exam Preparation Chapter 3 review exercises odd 1-71. Chapter 3 Test Exam prep: Chapter 4 review exercises odd 1-37. Chapter 4 Test	--	--	3	20	Week 10
Total Week 9		4	0	12	50	

Week 10

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due

LEC 10A	Discussion	1	--	--	10	
EXAM 10A	Final Exam	3	--	--	200	
Total Week 10		4	0	0	210	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1	Operations on Real Numbers	4	0	9
2	Properties of Real Numbers and Linear Equations	4	0	11
3	Discussion & Exam 1	4	0	4
4	Word Problems	4	0	9
5	Linear Inequalities in One Variable	4	0	11
6	Discussion & Exam 2	4	0	6
7	Rectangular Coordinate Systems & Lines	4	0	9
8	Linear Inequalities in Two Variables and Introduction to Functions	4	0	9
9	Systems of Linear Equations	4	0	12
10	Discussion & Exam 3	4	0	0
Total		40	0	80

Table/Point Breakdown

Assignment	Possible Points	Percent of Grade
In Class Group Activity	20	2%
Section 1.1-1.3 Questions	20	2%
Midterm 1 Exam Preparation Assignment	20	2%
Midterm 1 Exam 1	150	15%
Presentation	100	10%
Homework Assignment	100	10%
Midterm 2 Exam Preparation Assignment	20	2%
Midterm 2 Exam 2	150	15%
Research paper	100	10%
Exam Preparation	20	2%
Final Exam Assignment	200	20%
Participation	100	10%
	1000	100%

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0
60 or above	CR	0
59 or below	NC	0
N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend	
CR = Credit	NC = No Credit
I = Incomplete	W = Course

	Withdrawal
AU = Audit	TR = Transfer Credit
WV = Waiver	

Academic Accommodation / Adjustment Policy:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.