Math 103, Intermediate Algebra – Spring Semester 2020

Contact Information:

Instructor: Ed Clemons
Office: Swart106
E-mail: clemonse@uwosh.edu

Text: Elementary and Intermediate Algebra, Edition 5 by Miller/ONeill/Hyde
Office Hours: 10:20-11:20 MWF

Grading: Your final grade is based on a weighting of activities, quizzes and exams as listed below.

Assessment	Points
ALEKS Homework	10%
In-class and Swart301 lab quizzes	10%
Quiz (Feb24 or 25 at Polk Library Testing Center outside of a class session)	5%
Quiz (April 6 or 7 at Polk Library Testing Center outside of a class session)	5%
Exams (2)	20% each
Final Exam	30%

Please note that exams are designed to be administered in one hour. Instructors cannot extend exam times for a student unless that student has a written learning disability accommodation from the Dean of Students Office or Project Success.

[92,100]	A
[90,92)	A-
[88,90)	B+
[84,88)	B
[82,84)	B-
[80,82)	C+
[75,80)	C
[50,75)	D
[0,50)	F

Homework: Timely completion of all homework can provide a useful study tool for quizzes and exams. Invest your time in complete solutions that you can review at a later date as preparation for quizzes and exams.

In Class Activities: You will receive points for participating in the "in class activity" classroom exercises. Possible "in class activities" may include group activities, unannounced homework quizzes or collection of homework. Unannounced homework quizzes consist of problems from previously assigned topics. If you are absent for any reason on the day of an in class activity, your score for that activity is a zero. There will be no make-up activities given.

Exams: If I am not contacted prior to exam time and you are absent for an exam, your score for that exam will be zero. There is a cumulative final exam in MATH103.

TI-30XA is the required calculator for MATH103.

The Swart301 Developmental Math Lab provides free walk-in tutoring for 67-103 students. The Swart301 tutoring schedule is posted at http://www.uwosh.edu/mathematics/developmental-mathematics. Students are strongly encouraged to actively solve all suggested exercises listed on the syllabus and to use the Swart301 lab as a resource for assistance with any questions generated while completing homework exercises.

ALEKS Homework: Students will be completing online homework for the course in ALEKS software. ALEKS access codes can be purchased at the university bookstore. ALEKS student registration instructions are at https://www.aleks.com/highered/math/Higher_Ed_Student_Registration.pdf. It is planned that ALEKS course access codes will be shared with enrolled students via email.

MAT103 Suggested Exercises:

7.1	11,12,13,15,17,29,32,33,35,37,39,41,43,35,37,51,53,57,59,63,75,79,85
7.2	3,5,7,9,13,15,17,21,23,27,29,33,37,59,63
7.3	13,15,19,23,25,27,29,31,37,39,41,43,45,51,53,55
7.4	7,9,11,15,17,21,25,27,31,37,39,43,45,49,57,59,73,75,77,79
7.5	7,9,11,15,17,21,25,27,31,33,35,37,39
7.6	11,15,17,21,23,27,29,31,33,41,45,47,49,51,53,55,57,59,61,63,65,67
7.7	9,11,23,25,27,29,31,33,35,37,41,45,51,55,57
8.1	11,13,15,17,19,21,23,25,29,31,33
8.2	11,13,15,19,21,23,25,29,31,33,35,47,49,53,61,63,81,85,95,97,99
8.3	3,5,9,11,17,19,21,25,29,31,33,35,53,57,59
8.4	3,5,7,9,11,13,15,17,19,21,23,25,31,33,35.65.67,69,71,73,75,77,85
10.1	8,11,13,15,21,23,25,27,29,31,39,43,45,47,48,51,53,89,61,63,65,67,69,71,73,75,77,79,81,97,97
10.2	3,5,7,9,11,13,15,1721,23,25,29,33,37,43,45,47,49,51,53,55,57,59,61,6365,67,69,71,73,75,77,79,81,83,89,91
10.3	9,11,13,15,17,21,23,25.35,37,39,43,47,51,59,57,59,61,63,69,71,73,77,79,81
10.4	15,17,23,29,37,39,41,45,47,51,53,55,63,73,75,83
10.5	11,19,21,23,25,29,31,35,37,45,47,49,51,53,55,57,61,63,67,85,87
10.7	11,13,15,17,19,25,31,33,39,41,47.51,57,67,71,77,79
11.1	3,5,7,11,13,17,27,29,31,33,37,41,47,53,55,61,63,65,69,71
11.2	3,9,15,23,25,29,41,45,47,49,53,57,59,61,63,65,67
11.4	11,13,19,21,29,31,33,37,39,41,43,45,47,49,51.57.67,69,71,73,75,77,83,85
11.5	9,11,17,19,21,29,31,33,45,47,49,51,53,55,57
12.1	3,5,7,9,11,15,17,19,21,25,29,31,33,35,37,45,49,53,57abcd,59abcd,61,67
12.2	9,11,13,15,25,27,29,35,37,39,41,43,45,49
12.3	3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,57,59,63,65,75,77,79,83
12.4	17,19,21,23,29,39.45,47,49,59,61,67,75,91
12.5	13,15,21,23,29,33,35,39,41,43,45,47,49,53,61,63,ProblemRecognitionExercises(1-20all)
12.6	7,9,11,13,15,21,23,31,33,39,41,43,45,47,49,51,55,57,59,61,63,65,67,69,71,73,75,77,79,81

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MWF Planned Course Schedule – changes may occur as required.

February

3	Monday	7.1	Rational Ex
5	Wednesday	7.2	Mult/Div Rational Ex
7	Friday	7.3	Add Rational Exp
10	Monday	7.4	Subtract Rational Ex
12	Wednesday	7.5	Complex Fractions
14	Friday	7.5	Complex Fractions
17	Monday	7.6	Rational Equations
19	Wednesday	7.6/7.7	Rational Equations/App
21	Friday	7.7	Rational Eq Applications
24	Monday	8.1	Graphs
26	Wednesday	8.2	Functions
28	Friday	8.3	Linear Func

March

2	Monday	review	
4	Wednesday	**Exam 1**	
6	Friday	10.1/10.2	Roots/Rational Exp
9	Monday	10.3	Simplifying Radicals
11	Wednesday	10.4	Add/Sub Radicals
13	Friday	10.4/10.5	Add/Sub/Mult Rads
16	Monday	10.5	Mult Radicals
18	Wednesday	10.7	Radical Equations
20	Friday	10.7	Radical Equations
22-29	**No Classes – Spring Break**		
30	Monday	11.1	Complete the Square

April

1	Wednesday	11.1	Complete the Square
3	Friday	11.2	Quad Formula
6	Monday	11.4	Quadratic Graphs
8	Wednesday	11.4/11.5	Quad Graph/App
10	Friday	11.5	Quad Applications
13	Monday	review	
15	Wednesday	**Exam 2**	
17	Friday	8.4	Function Operations
20	Monday	12.1	Inverse Functions
22	Wednesday	12.2	Exponential Functions
24	Friday	12.2/12.3	Exp/Log Func
27	Monday	12.3	Logarithmic Functions
29	Wednesday	12.4	Log Properties

May

1	Friday	12.4/12.5	Prop/NatLog/COB
4	Monday	12.5	Nat Log & COB
6	Wednesday	12.6	Exponent/Log Eq
8	Friday	12.6	Exponent/Log Eq
11	Monday	review	
13	Wednesday	review	
15	Friday	**Final Exam**	

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Learning Objectives: This course provides an introduction to algebra, focused on critical thinking, problem solving and the communication of ideas to help students prepare for future coursework and future problem solving opportunities.

Upon successful completion of the course, students are expected to have the ability to complete the following:

- Students will work with linear functions, quadratic functions and exponential functions in the forms of equations, tables and graphs proficiently.
- Students will solve quadratic equations utilizing both completing the square and the quadratic formula.
- Students will determine and interpret the meaning of the x-intercepts and y-intercepts for various functions.
- Students will calculate a discriminant and will identify how features of a calculated discriminant value relate to the features of the equation and graph of a quadratic function
- Students will graph exponential growth and decay functions.
- Students will utilize the properties of exponents to simplify radical expressions, to solve radical equations and to solve exponential equations that do not require the use of logarithms where a common integer base is determined.
- Students will solve application exercises through a logical and sequential process that emphasizes preparing a plan of action, creating an equation, solving the equation, answering the original question including the correct units, checking that the answer is a plausible real number solution and rejecting non-plausible real number solutions such as negative distances, negative radicands in even index roots and/or extraneous solutions.
- Students will exhibit proficiency in sharing information related to rational expressions and rational equations. Students will exhibit proficiency in factoring trinomials by grouping, simplifying rational expressions and solving rational equations. Shared information will include key elements of rational expressions such as numerator, denominator, polynomial, binomial and trinomial.