Math 103, Intermediate Algebra – Spring 2020

Contact Information:

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Office:	Office hours will be held through email
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Text: Beginning & Intermediate Algebra, Edition 5 by Miller/O'Neill/Hyde
E-books are included within the Aleks homework system. Physical paper texts may be optionally purchased for a small fee but a physical book is not required.

Office Hours: MWF 3:00-5:00, other times by appointment
Due to the closure of our physical campus, office hours will be held in lieu of class time via the internet. I will be sitting at my computer to assist you via email with any questions you may have. If you would like to discuss and work through a problem, please send me an email and I will respond via email or we can work through problems using software such as Collaborate Ultra or Zoom that will enable us to speak online and use a virtual whiteboard. I will also try to respond to other emails between 9am and 5pm throughout the day Monday through Friday but my response will not be as quick as it is during office hours. I cannot guarantee a response to emails received over the weekend or evening until the next time I am at a computer.

Emails: The fastest way to contact me is via email. **If you send me an email, please be sure to include your name and your class section or meeting time.**

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

Assessment	Points
Quizzes	20%
Aleks Homework	10%
Exam 1	20%
Exam 2	20%
Final Exam	30%

Grading Scale:

92-100	A
90-91	A-
88-89	B+
84-87	B
82-83	B-
80-81	C+
75-79	C
50-74	D
0-49	F

Aleks: Spending regular time working on homework problems is vital for properly understanding and retaining the information we cover. For homework, we will be utilizing ALEKS. This is an adaptive homework system that will customize your homework questions to your specific needs. You should have received an activation code with the purchase of your textbook through the bookstore. Please use class code **YAHLA-Y9YQJ** when signing up for the course. A video showing you how to sign into the Aleks homework system can be viewed at http://video.mhhe.com/watch/qYN1SRb4hQqVr4KP3s4Mb1 Once you have signed into the course you will begin an initial assessment in which Aleks attempts to understand your level of mathematical understanding on various concepts. This assessment can last up to 30 questions and may take you up to 2 hours. Please take the assessment seriously as it is in your best interest to allow Aleks to accurately assess your content knowledge.
On a daily basis you must be in learn mode to receive credit for the daily homework assignments. To receive credit for the homework all you must do is complete the homework prior to the due date by answering a certain number of questions correctly in a row for each of a series of topics within that section. You will have as many attempts at these problems as is necessary prior to the due date for each section. As long as you are completing the homework on time you will earn 100% for the homework no matter how many incorrect answers you may have had along the way.

When studying for exams you may wish to enter review mode where you can select specific sections in which to work additional homework problems.
While other browsers may be used, Aleks works best when using Google Chrome.
The technical support for phone number for Aleks is **800-258-2374**.
Quizzes and Exams: Quizzes and Exams will be given online using the Aleks homework system.
The topics covered on each quiz are listed in the title of the quiz. Once you feel you understand that material you may complete the quizzes (in order 1-10) as soon as you would like as long as they are completed by their individual due dates. **If you do not complete a quiz prior to its due date your score for that activity is a zero. There will be no make-up quizzes given.** Feel free to work ahead on the homework and quizzes if you feel comfortable with the material.
If I am not contacted prior to exam time and you fail to complete an exam, **your score for that exam will be zero**.
There is a cumulative final exam in Math 103. Typically, in class you are given one hour to complete an exam. Since these exams are online and you will have to enter your answers into the computer, the time limit to complete an exam in this class is now 2 hours. On the two scheduled exam days the exam will become available to you at 1PM and will close at 5PM. You may log in and take your two-hour exam at any point during that four-hour window, but you must be sure that you are finished by 5:00 PM. If you wait to begin the exam until 4:30, you would only have 30 minutes to complete the exam so please plan appropriately.
When you complete a quiz or exam, your answers will be submitted into the Aleks System. You should also be working the problems out on blank paper, being sure to label which problem you are working out. Once you have completed the quiz or exam you will then take pictures of your work (the pictures should be clear and upright using legible handwriting), one picture for each page of work. You will then attach all these pictures in order in a single original email to me. The subject of the email for a quiz should be "Math 103 Quiz (Quiz Number) (Your Last Name)". For example, I would submit the first quiz using the subject: *Math 103 Quiz 1 Tauber*. For the exams use "Math 103 Exam 1 (Your Last Name)", "Math 103 Exam 2 (Your Last Name)", and "Math 103 Final Exam (Your Last Name)" for the final exam. For example, I would submit my work for the first exam using the subject: *Math 103 Midterm Exam Tauber*. I will use these pictures to assign any partial credit for your quiz or exam. Just as an answer without any work would receive zero points during a typical in-class quiz or exam, if you fail to send me work for a problem you will not receive any points for that problem. **These pictures of your work should be sent within one hour of you completing the quiz or exam.** Please be sure you are sending an original email and not replying to an existing email when you submit your work (definitely not using Reply All). **Do not dispose of any of your work until the end of the course.**

Calculator: A graphing calculator such as the TI-84 is recommended for this course.
Tutoring: Please seek help as soon as you find you are having difficulty with the material. Do not wait. If you cannot make it to my virtual office hours you may contact me and set up a time outside of those hours to collaborate using virtual software. Due to the closure of campus the free walk-in tutor lab located in Swart 301 will be closed throughout the semester.
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.

TENTATIVE SCHEDULE

March				
30	Monday	Read Syllabus, Log into Aleks, Aleks Tutorials, Take Initial Assessment		
		Section 7.1	Introduction to Rational Expressions	***due 4/1***
April				
1	Wednesday	Section 7.2	Multiplying and Dividing Rational Expressions	***due 4/3***
		Section 7.3	Least Common Denominator	***due 4/3***
		Quiz 1 Covering Sections 7.1, 7.2, and 7.3 due Friday April 3		
3	Friday	Section 7.4	Adding and Subtracting Rational Expressions	***due 4/6***
		Section 7.5	Complex Fractions	
6	Monday	Section 7.5	Complex Fractions	***due 4/8***
		Section 7.6	Rational Equations	***due 4/8***
		Quiz 2 Covering Sections 7.4, 7.5, and 7.6 due Wednesday, April 8		
8	Wednesday	Section 7.7	Application of Rational Equations and Proportions	***due 4/10***
		Section 8.1	Introduction to Relations	***due 4/10***
		Quiz 3 Covering Section 7.7 due Friday, April 10		
10	Friday	Section 8.2	Introduction to Functions	***due 4/13***
		Section 8.3	Graphs of Linear Functions and Applications	***due 4/13***
		Quiz 4 Covering Sections 8.1, 8.2, and 8.3 due Monday, April 13		
13	Monday	REVIEW		
		EXAM #1	**Complete by 5PM on Monday, April 17**	
15	Wednesday	Section 10.1	Definition of nth Root	***due 4/17***
		Section 10.2	Rational Exponents	***due 4/17***
		Section 10.3	Simplifying Radical Expressions	***due 4/17***
		Quiz 5 Covering Sections 10.1, 10.2, and 10.3 due Friday April 17		
17	Friday	Section 10.4	Addition and Subtraction of Radicals	***due 4/20***
		Section 10.5	Multiplication of Radicals	
20	Monday	Section 10.5	Multiplication of Radicals	***due 4/21***
		Section 10.7	Solving Radical Equations	
		Quiz 6 Covering Sections 10.4 and 10.5 due Wednesday, April 22		
22	Wednesday	Section 10.7	Solving Radical Equations	***due 4/24***
		Section 11.1	Square Root Property and Completing the Square	***due 4/24***
		Quiz 7 Covering Sections 10.7 and 11.1 due Friday, April 24		
24	Friday	Section 11.2	Quadratic Formula	***due 4/27***
		Section 11.4	Graphs of Quadratic Functions	***due 4/27***
27	Monday	Section 11.5	Application of Quadratic Functions	***due 4/29***
		Quiz 8 Covering Sections 11.2, 11.4, and 11.5 due Wednesday, April 29		
29	Wednesday	REVIEW		
		EXAM #2	**Complete by 5PM on Wednesday, April 29**	
May				
1	Friday	Section 8.4	Algebra of Functions and Composition of Functions	***due 5/4***
		Section 12.1	Inverse Functions	***due 5/4***
4	Monday	Section 12.2	Exponential Functions	***due 5/6***
		Section 12.3	Logarithmic Functions	***due 5/6***
		Quiz 9 Covering Sections 8.4, 12.1, 12.2, and 12.3 due Wednesday, May 6		
6	Wednesday	Section 12.4	Properties of Logarithms	***due 5/8***
		Section 12.5	The Irrational Number e and Change of Base	
8	Friday	Section 12.5	The Irrational Number e and Change of Base	***due 5/11***
		Section 12.6	Exponential and Logarithmic Equations	***due 5/11***
		Quiz 10 Covering Sections 12.4, 12.5, and 12.6 due Monday, May 11		
11	Monday	REVIEW		
13	Wednesday	**FINAL EXAM**	**Complete by 5PM on Wednesday, May 13**	
15	Friday	NO CLASS		