Spring Semester 2020 UW Oshkosh, Fox Cites Campus
Math 103 – Intermediate Algebra 2– 3 credits
Section #017C -- 2/3/20 – 5/15/20 MWF 11:30 a.m. – 12:30 p.m. Room 1336

Instructor: Kathy Hopper
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E-mail: hopperk@uwosh.edu Generally, I will respond to e-mails within 24 hours.

Office Hours: Mondays 9:00 – 10:00 a.m., Tuesdays 11:30 a.m. – 12:30 p.m., Wednesday Study Group 12:40 – 1:40 p.m. in room 1819, Fridays 10:15 – 11:15 a.m., and by appointment

Text/Supplies: Required: 720 Day ALEKS access code (includes access to Ebook), TI-84+ or TI-83+ calculator, binder, filler paper, notebook. Optional: loose-leaf text available of Beginning and Intermediate Algebra by Miller, O'Neill and Hyde, 5th Edition, McGraw-Hill available for purchase through your ALEKS account.

The ALEKS class code for this section is KXUWK-WJJJ9

Course Description:
Functions, tables and graphs, problem solving, inequalities in one variable, exponents and radicals, quadratic functions and exponential functions. This course does not count towards the 120 units credits (crs.) necessary for graduation. Prerequisites: Mathematics 101 with a C or better or placement. Not open to students who have completed Mathematics 104 or higher. (Fall-Spring)

Learning Outcomes:
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 factor expressions and solve equations that are quadratic in form.
- Students will determine the solution of 2x2 systems of linear equations utilizing processes by graphing, the substitution method and the addition or elimination method.
- Students will utilize the properties of inequalities to determine the solution of compound inequalities and write the solutions in different representations including the real number line, interval notation and set builder notation.
- 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.

Assessments:	**Weight**
ALEKS/Learning Activities	20%
ALEKS Homework	(15%)
In-Class Activities	(5%)
Exam 1	25%
Exam 2	25%
Final Exam	30%

Grading Scale: ****A grade of "C" or higher is required to pass this class**

		A	93-100%	A-	90-92%
B+	87-89%	B	83-86%	B-	80-82%
C+	77-79%	C	73-76%	C-	70-72%
D+	67--69%	D	63-66%	D-	60-62%
				F	less than 60%

Grades are weighted by category – not just based on points. All grades will be recorded in Canvas and are available on an ongoing basis.

Tentative Schedule: (Assignment, quiz, and exam dates on this syllabus are subject to change.)

	DATE	**SECTION COVERED**
February	Mon. 2/3:	Welcome, ALEKS, Factoring Review
	Wed. 2/5:	Factoring Review, 7.1 Introduction to Rational Expressions (and Review of 0 Product Rule to solve quadratic equations),
	Fri. 2/7:	7.1, 7.2 Introduction to Rational Expressions, Mult. and Division of Rat. Expressions
	Mon. 2/10:	7.2, 7.3 Multiplication and Division of Rational Expressions, Least Common Denominator
	Wed. 2/12:	7.3, 7.4 Least Common Denominator, Addition and Subtraction of Rational Expressions
	Fri. 2/14:	7.4 Addition and Subtraction of Rational Expressions
	Mon. 2/17:	7.5 Complex Fractions
	Wed. 2/19:	7.5, 7.6 Complex Fractions, Rational Equations
	Fri. 2/21:	7.6, 7.7 Rational Equations, Applications of Rational Equations and Proportions
	Mon. 2/24:	7.7 Applications of Rational Equations and Proportions,
	Wed. 2/26:	2.8. 9.1 Linear Inequalities, Compound Inequalities
	Fri. 2/28:	9.1 Compound Inequalities
March	Mon. 3/2:	9.3, 9.4 Absolute Value Equations, Absolute Value Inequalities
	Wed. 3/4:	9.4, 10.1 Absolute Value Inequalities, Definition of nth Root
	Fri. 3/6:	**Review for Exam 1**
	Mon. 3/9:	**Exam 1 on sections 7.1 – 7.7, 2.8, 9.1 – 9.4**
	Wed. 3/11:	10.1 Definition of nth Root
	Fri. 3/13:	10.2 Rational Exponents with review of exponent rules
	Mon. 3/16:	10.2, 10.3 Rational Exponents, Simplifying Radical Expressions
	Wed. 3/18:	10.4, 10.5 Addition and Subtraction of Radicals, Multiplication of Radicals
	Fri. 3/20:	10.5 Multiplication of Radicals
	Mon., 3/23-Fri., 3/27	**Spring Break**

March	Mon. 3/30:	Review, 10.6 Division of Radicals and Rationalization
April	Wed. 4/1:	10.6, 10.7 Division of Radicals and Rationalization, Solving Radical Equations
	Fri. 4/3:	10.7, 10.8 Solving Radical Equations, Complex Numbers
	Mon. 4/6:	8.1, 8.2 Introduction to Relations, Introduction to Functions
	Wed. 4/8:	8.2 Introduction to Functions
	Fri. 4/10:	8.2, 8.3 Introduction to Functions, Graphs of Functions
	Mon. 4/13:	8.3 Graphs of Functions
	Wed. 4/15:	8.3 Graphs of Functions
	Fri. 4/17:	**Review for Exam 2**
	Mon. 4/20:	**Exam 2 on sections 10.1 – 10.8, 8.1 – 8.3**
	Wed. 4/22:	11.1 Square Root Property and Completing the Square
	Fri. 4/24:	11.1, 11.2 Square Root Property and Completing the Square, Quadratic Formula
	Mon. 4/27:	11.4 Graphs of Quadratic Functions
	Wed. 4/29:	11.4 Graphs of Quadratic Functions
May	Fri. 5/1:	11.5 Vertex of a Parabola; Apps and Modeling
	Mon. 5/4:	11.5 Vertex of a Parabola; Apps and Modeling
	Wed. 5/6:	12.2 Exponential Functions
	Fri. 5/8:	12.2, 12.6 Exponential Functions, Exponential Equations Property
	Mon. 5/11:	**Review for Final Exam**
	Wed. 5/13:	**Review for Final Exam**
	Fri. 5/15:	**Comprehensive Final Exam**

Exams: Must be taken on the date indicated by the instructor unless I am notified in advance of a verifiable reason or unless a verifiable emergency develops just prior to class. Otherwise, you will receive a 0 on the exam. Since you are demonstrating the processes of critical thinking, all work must be shown for full credit. Cell phone calculators may not be used during exams.

Accommodation Plan: In college, students must advocate for themselves concerning accommodation plans for things such as extended time on exams or copies of notes. If you would like more information, please contact me or an advisor in the Solution Center. If you already have an accommodation plan that you would like to utilize, please contact me as soon as possible. You can also see the following website for more information:

https://www.uwosh.edu/provost/Main%20Highlight/handbooks/online-faculty-staff-handbook/generalpersonnel-materials-faculty-and-academic-staff/gen-4-instructional-policies/part-b-classroom-teachingpolicies/gen-4-b-17-students-with-disabilities-policies-and-procedures

ALEKS: is a software program for homework which will be completed out of class. Due dates for homework will be indicated in ALEKS and must be completed by the given date. Homework is due at 11:59 p.m. on the date listed.

The ALEKS class code for this section is KXUWK-WJJJ9

You will need this code to register in the correct class in ALEKS.

Learning Activities For in-class activities, you must be present the day they are completed in class. Thus, attendance and participation are key components for success in this class. On these activities, you will receive a grade of 0 through 10. If you are present the day of the activity and receive a score less than 10, you can use the feedback given to make corrections and turn in the assignment again the next class period to earn up to full credit. The two lowest in-class activity grades will be dropped.

Academic Support: See me or use the Developmental Math Lab in room 1819.

Extra Credit opportunities will be presented in class. Note that it is not possible to complete a large amount of extra credit at the end of the course to save a failing grade.

Weather-related Class Cancellation Weather-related cancellations are announced on the FOX website, as well as on radio and television stations.

Students Rights: Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990:
https://uwosh.edu/financialaid/consumer-information/

Academic Misconduct: Academic Misconduct are issues that stem from academic work at UW Oshkosh. Examples can include plagiarism, stealing an exam, copying homework, or cheating on an exam. These will not be tolerated.

https://www.uwosh.edu/deanofstudents/university-policies-procedures/academic-misconduct

The instructor reserves the right to adjust the information presented on the syllabus as needed.

To optimize classroom learning and enjoyment, please follow these rules of RESPECT.

Realize that everyone has different strengths and weaknesses. Learn from others' strengths and be tolerant of their weaknesses. Help each other out in class; you will learn more!

Enjoy the class "real time." Class time is not for social media, recreational material, or other course work. These activities not only distract you, but distract your classmates as well.

Show sensitivity to others' attempts at answering questions, especially if the answer given is incorrect.

Participate fully by listening when others are talking.

Expect to remain engaged for the entire class period. Please be here with all course materials and assignments out by the beginning of class and be ready to participate until the very end of class. We will make the most of every minute of class time.

Choose to be tolerant of different points of views and different beliefs that your classmates may hold. Learning about others' beliefs is an important part of growth that takes place in college.

Talk to me if you have concerns about classroom behavior and I will do the same with you.

Grading Rubric for Math 103:

Below is a grading rubric that I will follow to determine the point value that you earn for each math problem that I grade. While the point values may vary from problem to problem, the rubric below indicates the basis of how I will calculate the number of points you will earn for each problem. As we go through the semester, please clarify with me if you have questions as to the work that needs to be shown to earn full credit.

How is Credit for Problems Earned?	**No Credit Earned**	**Partial Credit Earned**	**Full Credit Earned**
Understanding the problem Ex. Do you know what type of answer you are looking for?	Complete misunderstanding of the problem	Part of the problem is misunderstood or misinterpreted	Complete understanding of the problem
Planning a Solution Ex. Can you set up an appropriate framework, such as an algebraic equation?	No attempt, or totally inappropriate plan	Partially correct plan based on part of the problem being interpreted correctly	Plan could have led to a correct solution if implemented properly
Getting an Answer Ex. Did you solve the problem correctly showing all necessary steps?	No answer, or wrong answer based on an inappropriate plan	Copying error, computational error, partial answer for a problem with multiple answers, correct answer with missing work shown	Correct answer and correct label for the answer with work shown
Neatness and Answer Clearly Indicated Ex. Can I easily follow your work and answer?	No answer given or multiple answers given with no indication of which is meant to be the final answer or work can't be read or followed	Work is shown but difficult to follow or difficult to read	Work is shown neatly and is easy to follow. Final answer is clearly indicated either in an answer blank or circled.

Credit: Based on work from Charles, Randall, Lester, Frank and O'Daffer, Phares. How to Evaluate Progress in Problem Solving. Reston, VA: National Council of Teachers of Mathematics, 1987. In Stenmark, Jean, Mathematics Assessment: Myths, Models, Good Questions and Practical Suggestions. Reston, VA: National Council of Teachers of Mathematics, 1991.