

Spring Semester 2020 UW Oshkosh, Fox Cities Campus
Math 101 – Elementary Algebra 2– 2 credits
Section #202C -- 3/30/20 – 5/15/20 MTWR 10:20 a.m. – 11:20 a.m. Room 1351

Instructor: Kathy Hopper
Office Room #: 2847
Phone: Office 832-2691, University 832-2600
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), course packet, scientific 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 for purchase through your ALEKS account.

The ALEKS class code for this section is KMLT4-XHEF6

Course Description:

The course will focus on basic concepts about problem solving, factoring, polynomials, rational expressions and equations. Only those students failing to meet the prerequisites for courses at the Mathematics 103 level will be recommended for this course. This course does not count toward the 120 units (crs.) necessary for graduation. A grade of C or better is required to remove mathematics deficiency. Prerequisite: Mathematics 100 with a C or better or placement.

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 utilize basic concepts about the real number system, fundamental operations of arithmetic, simplifying or evaluating algebraic expressions, solving algebraic equations, properties and rules of exponents, adding, subtracting and multiplying polynomials, dividing a polynomial by a monomial, factoring polynomials, simplifying and evaluating rational expressions and solving rational equations.
- Students will utilize precise language regarding exponents including base, exponent, power, and reciprocal.
- Students will simplify exponential expressions and solve exponential equations utilizing the product rule, the quotient rule, the expanded power rule and the negative rule of exponents proficiently.
- Students will factor trinomials by grouping, simplify rational expressions and solve rational equations.
- 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, and/or extraneous solutions.

Assessments:

Weight

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

ALEKS/Learning Activities	25%		A 93-100%	A- 90-92%
Homework	(15%)	B+ 87-89%	B 83-86%	B- 80-82%
In-Class Work	(10%)	C+ 77-79%	C 73-76%	C- 70-72%
Midterm Exam	30%	D+ 67--69%	D 63-66%	D- 60-62%
Final Exam	45%		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.)

	<u>DATE</u>	<u>SECTION COVERED</u>
March	Mon. 3/30:	Welcome, ALEKS
	Tues. 3/31:	Review: fractions and solving linear equations (Sections 1.1 and 2.2/2.3)
April	Wed. 4/1:	4.1 Solving Systems of Equations by Graphing
	Thurs. 4/2:	4.2 Solving Systems of Equations by Substitution
	Mon. 4/6:	4.3 Solving Systems of Equations by Addition/Elimination
	Tues. 4/7:	4.4 Applications of Linear Equations in Two Variables
	Wed. 4/8:	4.4 Applications of Linear Equations in Two Variables
	Thurs. 4/9:	5.1 Multiplying and Dividing Exponents with Common Bases
	Mon. 4/13:	5.2, 5.3 More Properties of Exponents, Definitions of b^0 and b^{-n}
	Tues. 4/14:	5.3 Definitions of b^0 and b^{-n}
	Wed. 4/15:	5.3 and Exponent Review
	Thurs. 4/16:	5.4 Scientific Notation
	Mon. 4/20:	Review for Midterm
	Tues. 4/21:	Midterm
	Wed. 4/22:	5.5, 5.6 Addition and Subtraction of Polynomials, Multiplication of Polynomials and Special Products
	Thurs. 4/23:	5.7 Division of Polynomials and Polynomial Review
	Mon. 4/27:	6.1 Finding the GCF and Factoring it out
	Tues. 4/28:	6.1, 6.2 Factoring by Grouping, Factoring Trinomials of the Form $ax^2 + bx + c$ $a = 1$
	Wed. 4/29:	6.3/6.4 Factoring Trinomials of the form $ax^2 + bx + c$ $a \neq 1$ (ac method and guess and check)
	Thurs. 4/30:	6.5 Factoring the Difference of Squares and Factoring Review
May	Mon. 5/4:	Mixed Factoring and Polynomial Review
	Tues. 5/5:	6.7 Solving Equations Using the Zero Product Rule
	Wed. 5/6:	6.8 Applications of Quadratic Equations
	Thurs. 5/7:	Review for final
	Mon. 5/11:	Review for final
	Tues. 5/12:	Final Exam
	Wed. 5/13 and Thurs. 5/14:	No Class

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 with regards to 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.

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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 it is 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.

Recognize 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 101:

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.

<u>How is Credit for Problems Earned?</u>	<u>No Credit Earned</u>	<u>Partial Credit Earned</u>	<u>Full Credit Earned</u>
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.