### Spring Semester 2020 UW Oshkosh, Fox Cites Campus Math 100 – Elementary Algebra 2– 2 credits

Section #102C -- 2/3/20 - 3/19/20 MTWR 10:20 a.m. - 11:20 a.m. Room 1551

**Instructor:** Kathy Hopper

Office Room #: 2847

**Phone:** Office (920) 832-2691, University (920) 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

available for purchase through your ALEKS account.

## The ALEKS class code for this section is M6HR4-3MXM4

### **Course Description:**

The course will focus on basic concepts about real numbers, fundamental operations of arithmetic, algebraic expressions, an introduction to linear equations and problem solving, graphing linear equations, and exponents. Only those students failing to meet the prerequisites for courses at the Mathematics 101 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. (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 utilize basic concepts about the real number system, fundamental operations of arithmetic, order of operations, inequalities, simplifying or evaluating algebraic expressions, simplifying ratios, solving proportions and solving algebraic equations.
- Students will utilize precise language regarding fractions including numerator, denominator, lowest common denominator, greatest common factor and reciprocal.
- Students will add, subtract, multiply and divide fractions proficiently.
- Students will simplify expressions that contain fractions and solve algebraic equations that contain fractions proficiently.
- Students will utilize information related to linear equations in the representations of equations, tables and graphs.
- Students will determine the slope of a linear equation, create a table, graph a linear equation and create a linear equation given the coordinates of two points.
- 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:	<u>Weight</u>	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+ 6769% 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>	SECTION COVERED		
September	Mon. 2/3:	Welcome, ALEKS		
	Tues. 2/4:	1.1 Fractions		
	Wed. 2/5:	1.1 Fractions		
	Thurs. 2/6:	1.2 Intro. to Algebra & the Set of Real Numbers		
	Mon. 2/10:	1.3, 1.4/1.5 Exponents, Square Roots & Order of Operations, Adding and Subtracting Real Numbers		
	Tues. 2/11:	1.4/1.5, 1.6 Adding and Subtracting Real Numbers, Multiplying and Dividing Real Numbers		
	Wed. 2/12:	1.7 Properties of Real Numbers and Simplifying Expressions		
	Thurs. 2/13:	2.1, 2.2 Add./Subtraction/Mult./Division of Real # and Solving Linear		
Equations				
	Mon. 2/17:	2.2, 2.3 Solving Linear Equations & Linear Equations w/ Fractions and Decimals		
	Tues. 2/18:	Review for Midterm Exam		
	Wed. 2/19:	Midterm Exam		
	Thurs. 2/20:	2.4 Applications of Linear Equations: Intro. to Problem Solving		
	Mon. 2/24:	2.4, 2.5 Intro. to Problem Solving and Applications Involving Percents		
	Tues. 2/25:	2.5 Applications Involving Percents		
	Wed. 2/26:	2.6 Applications Involving Percents and Formulas/Applications of Geometry		
	Thurs. 2/27:	2.6, 2.7 Applications of Geometry and Mixture Apps/ Uniform Motion		
March	Mon. 3/2:	2.7 Mixture Applications and Uniform Motion		
	Tues. 3/3:	3.1, 3.2 Rectangular Coordinate System/Linear Equations in 2 Variables		
	Wed. 3/4:	3.3 Slope of a Line and Rate of Change		
	Thurs. 3/5:	3.4 Slope-Intercept Form of a Linear Equation		
	Mon. 3/9:	3.4, 3.5 Slope-Intercept Form and Point-Slope Formula		
	Tues. 3/10:	3.5, 3.6 Point-Slope Formula and Applications of Linear Equations & Modeling		
	Wed. 3/11:	3.6 Applications of Linear Equations & Modeling		
	Thurs. 3/12:	Application Work Day		
	Mon. 3/16:	Review for Final Exam		
	Tues. 3/17:	Final Exam		
	Wed. 3/18 and Thurs.	3/19: 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 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:

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

**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 M6HR4-3MXM4

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

<u>Learning Activities</u> For in-class activities, <u>you must be present the day they are completed in class</u>. 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.

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

<u>Students Rights:</u> 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/

<u>Academic Misconduct</u>: 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.

**R**ealize 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!

**E**njoy 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.

<u>Choose</u> 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 100:**

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.