

# MATH 99: Pre-College Algebra

## Winter 2006 Syllabus

4 Credit Hours

Location:  
Natural Science 215

Time: Noon to 2:00 PM  
Days: Monday/Wednesday

Instructor: Karen Brown  
Office NS 213

Office Hours: M/W 2-3 PM  
Tu/Th 12:30-3:30  
Or by appointment.

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**Goal:** Review concepts of arithmetic and algebra to prepare fully-admitted Western Oregon University students for success in college mathematics courses. Designed to sharpen rusty skills, fill in gaps in mathematics background. Math 99 will suffice as a prerequisite for Math 105, Math 111, or Math 211 at WOU.

Credits earned apply for enrollment (eligibility), but do not apply toward a degree; this course satisfies no university or college requirement, other than pre-requisite for courses indicated.

This class is not designed to provide initial mastery of arithmetic and beginning algebra. If you are not sure if this is the right class for you, take the placement exam immediately. If you are placed into Math 20 or Math 60, please enroll in a community college class to gain mastery of these skills. Both Chemeketa and Linn-Benton have excellent offerings, satellite campuses, and various course times for your convenience.

### Required materials and tools:

Bound homework journal—spiral notebook or composition book  
Graph paper (composition books available in gridline!)  
Pencil and good eraser (recommend white plastic polymer type)  
Straight edge

### Textbook:

*Introductory Algebra, 2<sup>nd</sup> ed.*, by K. Elayn Martin-Gay, 2003, Prentice Hall,  
Pearson Education, New Jersey, ISBN 0-13-067682-9

Math 99 note packet for K. Brown to accompany the textbook, at WOU bookstore.

### Grading:

One third of your grade will be based on daily work. This includes homework, in-class activities, and quizzes. One third of your grade will be based on midterm exams. There will be four throughout the term. One third of your grade will be based on the final exam, given during finals week of the winter term.

**Homework: 3 points for each** homework assignment turned in **ON-TIME**.

Do your homework in a bound journal. Bring it to class every day. Turn in at the beginning of class each day. Start by doing every other even problem (4, 8, 12, 16...). **Show all your work** (in most cases). **CHECK** these with the answers in the back of the book. If they are all correct, you are done, and will ace the quiz.

If they are not all correct, do some odd problems from the chapter exercise set for that section, and check the SOLUTIONS in the back of the book to see how to do the problems. If you understand those, do the other even problems in that homework section, and **SHOW YOUR WORK!** Check the answers. If you realize that you do not understand the problems, see a tutor or call me for an appointment.

The object is not to get problems completed, but to understand the concepts. If you come to class without mastering the homework, you will do poorly on the quiz over that material. I will check that your homework is complete (problems done and **work shown**) and on-time. If you are doing poorly on the quizzes, I will require you to do more than the minimum number of problems.

**In-class activities:** Worth **3 points each**.

There will be one of these **every day**. They **CANNOT BE MADE UP** outside of class. They are textbook problems copied into the note packet, on the material presented that day. You are encouraged to work with other students on these activities.

**Quizzes:** Worth **10 points each**.

There will be a quiz at the beginning every of class following a day with new material presented. The quiz will be based on homework due that day. When you miss problems on the quizzes, you may work the problems again to gain some of the points you lost when the quiz was administered. **Do not erase any original work or answers**; use a different color or different sheet to show the new correct solution to missed problems. **Show your work!!**

You only get one chance to redo problems. Redo these in a timely manner. You can get up to one half of the points you lost, if you turn in the redos in the next class day or two after the quiz is returned to the class. You can get up to one third of the points missed if you turn it in three class days after it is returned; or one fourth for four days after; etc. I may also assign additional homework, in lieu of poor performance on quizzes. There will be no quiz on a day following an exam.

**Mid-term Exams:** Each mid-term exam is worth **50 points**.

There are four exams scheduled, about every other week. Each mid-term exam covers the material of the past few weeks, and are not comprehensive. There will be a student-directed review session prior to each exam. As with the quizzes, you may work missed problems again to gain half the points you lost when the exam was administered.

**Final Exam:** The final exam will be comprehensive. You do not need to take the final exam if you have achieved 90% of the points available throughout the term. (You have an A at that point, and will receive that grade.) However, you will need to take the final if you have less than 90% at the end of the term. The final exam is worth **200 points**.

### Grade scale:

Percent	Letter Grade	Percent	Letter Grade
100-93	A	73-77.9	C
90-92.9	A-	70-72.9	C-
88-89.9	B+	68-69.9	D+
83-87.9	B	63-67.9	D
80-82.9	B-	60-62.9	D-
78-79.9	C+	0-59.9	F

### **Policies:**

Late homework can be turned in up to the day the mid-term exam is given on the material. You can receive two points for a late homework assignment.

If you know ahead of time that you will not be in class for a mid-term exam, contact me ahead of time to make an arrangement. If you miss an exam without prior notice, please have some written evidence of your emergency situation, or use the proper University channels to communicate. I am understanding, but need verification of each case.

It is extremely important that you develop good 'math habits':

- Be kind to your math instructor: circle your answers so she can find them easily, in assignments, and on quizzes and exams.
- Resist the urge to erase a large amount of work-in-error. Stray marks lead to mistakes. Simply draw a neat X through the wrong work, and start again.
- If problems do not take an entire line, develop the technique of using more than one column, instead of running several problems on a single line.
- Work in a vertical manner on the page.
- Keep your equal signs aligned throughout the problem.
- Do your homework in a timely manner
- Make your numbers legible. Develop techniques to distinguish letters from numbers and/or symbols.
- **Show your work.** I may give partial credit on quizzes and exam for having the correct solving method, even if the final answer is wrong. If you do not show your work, and the answer is not correct, you will get no credit for the problem.
- Train yourself to write fractions in an upright manner, not with a diagonal slash, to avoid pulling unwanted factors into the denominator.

For example: "½" is not what I want. " $\frac{1}{2}$ " is the best way to indicate fractions.

There is no need to start an assignment on a new page of your homework journal, if you clearly mark where the old assignment ends and the new one begins. Draw a pair of horizontal lines at the end of one assignment to mark the beginning of the new one. Show where the most recent assignment starts by folding or clipping the corner of the page, or using a clip or sticky note.

There is very little need for a calculator in this course. It is recommended that you do not use one for routine work. It is **essential that you do not** use one for radicals ('square roots'), because calculators give decimal approximations, not exact answers. We will learn to simplify roots instead of using approximations.

**Incomplete status:** You must be passing when you request a report of incomplete. You must sign agreement with me about when and how you will complete this course. Or you may go through official university channels. See page 23 and 24 of the 2005-06 catalog for more information.

**Tentative Schedule below**

Math 99 Winter 2006 Tentative Schedule			Homework problems		
Date	Textbook Sections	Topic	Pages	Problems	Due
9-Jan	R1, R2, R3	Arithmetic Review,	R33-34	1-44	11-Jan
	1.2	Number Sets	85	1-18	11-Jan
11-Jan	1.3, 1.4, 1.5, 1.6, 1.7	Real Numbers, Number Lines	86-87	19-62	18-Jan
18-Jan	2.1, 2.2, 2.3	Solving Equations	179-180	1-33	23-Jan
23-Jan	2.4, 2.5, 2.6, 2.7, 2.8	Solving Equations, Problem Solving	180-182	34-101	25-Jan
<b>25-Jan</b>	<b>Exam 1</b>				
30-Jan	3.1, 3.2	Simplifying Expressions	253-255	1-60	1-Feb
1-Feb	3.3, 3.4, 3.5, 3.6, 3.7	Polynomials	255-256	66-120	6-Feb
6-Feb	4.1, 4.2, 4.3, 4.4, 4.5	Factoring Polynomials	321-322	1-50	8-Feb
8-Feb	4.6, 4.7	Quadratic Equations	322-324	51-70	13-Feb
<b>13-Feb</b>	<b>Exam 2</b>				
15-Feb	8.1, 8.2, 8.3	Radicals--simplifying, adding	617-618	1-42	20-Feb
20-Feb	8.4, 8.5	Radicals--multiplying, solving eq's	619-620	43-84	22-Feb
22-Feb	9.1, 9.3	Quadratic Equations	663-664	1-14, 23-34	27-Feb
27-Feb	6.2, 6.3, 6.4, 6.5, 6.6, 6.7	Graphing, Functions	499-504	1-70	1-Mar
<b>1-Mar</b>	<b>Exam 3</b>				
6-Mar	5.1, 5.2	Rational Expressions	397	1-26	8-Mar
8-Mar	5.3, 5.4	Rational Expressions	398	27-46	13-Mar
13-Mar	5.5, 5.6, 5.7	Rational Equations	399-400	47-74	15-Mar
<b>15-Mar</b>	<b>Exam 4</b>				
<b>24-Mar</b>	<b>Final Exam</b>	<b>Noon-2 PM</b>	<b>Comprehensive</b>		