MATH 091: Elementary Algebra — Spring Semester 2011

1.5 Credits – Not applicable towards graduation — **March 14 – May 6**

Section:	**Room:**	**Times:**	***Final Exam*:**	
001	**MRC 304**	**MWF 10:00 – 10:50 a.m.**	**Wednesday, May 11**	**12:50 p.m.**
002	**MRC 304**	**MWF 1:10 – 2:00 p.m.**	**Monday, May 9**	**9:50 a.m.**

Instructor: Elizabeth Gaedy (Math Specialist – Learning Center)
Contact Information: *Office:* MRC 332, *Phone:* 796-3192, *Email:* emgaedy@viterbo.edu, *Office Hours*: 8:30 – 4:30 By Appt.

Course Description: Real number system, properties and order of operations. Area and perimeter of rectangles, areas, and circles. Algebraic problem solving, solving linear equations and inequalities. Cartesian coordinate system, graphing linear equations and inequalities in two variables. Systems of linear equations. Exponents and radicals. Factoring polynomials, algebra of rational expressions, solving equations by factoring.

Note: This course serves as a pre-requisite for MATH 111 (Intermediate Algebra), MATH 130 (Introductory Statistics), or MATH 155 (Mathematics, A Way of Thinking). You must earn at least a "C" grade to qualify for the next course in your sequence.

If you are unsuccessful in MATH 091, it is recommended that you immediately register for the Tuesday/Thursday section of MATH 091, which is held for a full semester the following semester.

REQUIRED:
ALEKS Student Access Code: Code purchased from MATH 090 will still be valid.
There is no required textbook.

Course Goals and Student Outcomes:
Students will:

- Read with comprehension and demonstrate the ability to analyze and evaluate.
  - Read the explanations provided by the interactive program and be able to apply the methods to practice problems to complete the homework accurately and independently when working both inside and outside of the classroom.
- Discuss questions and solutions in class.
  - Verbalize where you have questions about the lecture examples, examples from the program, or homework problems.
- Demonstrate the ability to apply algebraic thinking and procedures to problem solving.
  - Complete at least 80% of the ALEKS pie.
    - This indicates that you were able to master at least 80% of the topics in the Beginning Algebra course on ALEKS. Mastery is indicated by correctly answering three questions in a row applying the same concept, or by correctly answering the question in an assessment.
  - Achieve correct solutions on quizzes and tests with at least 70% accuracy.
- Adhere to the Academic Honesty Policy.
  - Be able to work without asking others for help, or searching textbooks or the internet, during an assessment or quiz.

Course Procedures and Policies:

MATH 091: Math 091, "Introductory Algebra", is a not-for-graduation-credit course intended to prepare students for the various courses for which 091 is a pre-requisite, namely MATH 111 (Intermediate Algebra), MATH 130 (Introductory Statistics), and MATH 155 (Mathematics, A Way of Thinking). This course should be a refresher course for you, as the material would have been covered in high school Algebra 1 and Algebra 2 classes, which explains why this course is numbered 091, and why the 1.5 credits you will earn here do not count toward graduation, even though they do count toward full-time status. If you did not complete Algebra 1 or Algebra 2 in high school, you will find this class more challenging. Each student should be prepared to commit **at least 5 hours each week** working on the ALEKS program, through a combination of in-class and out-of-class time online.

Your math placement indicated that you have not mastered this content, whatever the reason. To make the best of the situation, your goal here must be to learn this material and master the necessary skills so that you can be successful in the courses you eventually need to take as part of your college program.

ALEKS: *ALEKS* (**A**ssessment and **LE**arning in **K**nowledge **S**paces) is a web-based program designed to carefully assess what students know and what they are ready to learn, and then to methodically tutor them in the given material, in this case Introductory Algebra. You should have already gone through the brief tutorial on the use of the ALEKS input tool, also called the "Answer Editor." When you start the Introductory Algebra course, the program will have you take an Initial Assessment to gauge where to have you begin.

Probably the best thing about ALEKS is that it allows each student to take a course specifically designed for his/her individual needs – students will be working at their own pace and working on material they are ready to learn. I will be using the first part of class for lecture, leaving the remainder of class for you to work on ALEKS, wherein I will be available for individual tutoring as the need arises.

Another advantage to using ALEKS is that since it is web-based you can work on your course anywhere you have internet access. ALEKS will remember where you left off and will always make sure that you have shown readiness before presenting new material.

Be sure to do your own work! Your best preparation for quizzes and assessments is when you have been working with ALEKS yourself. By allowing someone else to do your work for you, the only person you are cheating is yourself.

Grading System: Your grade will be determined by the following five *weighted* factors:

15% **(1) ALEKS Homework Practice Quizzes:** Percent Average of Highest Quiz Scores in each of the Six Quizzes
25% **(2) ALEKS modules completed:** Percentage of Pie Progress – "Blue" line
50% **(3) Final Exam:** 100 points possible – take percent scored
10% **(4) ALEKS Hours:** Percent Average of points achieved each week
+/- **(5) Attendance:** Mandatory - Important determination for borderline grades

Grades will be WEIGHTED based on the percentages listed above. To calculate your grade percentage, follow the formula below:

(10 × ALEKS Hours %) + (15 × Homework Quizzes %) + (25 × Pie Progress %) + (50 × Final Exam %) = ____%

(Percentages are converted to decimal/whole number equivalent before multiplying.)

Grades will be assigned according to the scale:

A	93% or above
AB	88 – 92%
B	82 – 87%
BC	77 – 81%
C	70 – 76% ****NOTE**** You need at least a "C" grade to be allowed to advance to the next course in your sequence.
CD	65 – 69%
D	60 – 64%
F	< 60%

(1) ALEKS Homework Practice Quizzes: Once you have begun work in the Beginning Algebra pie on ALEKS, in addition to working on the Pie topics, you are required to complete one quiz each week for the first six weeks. So by the 6th week into Beginning Algebra topics on ALEKS, you will have attempted all six of the quizzes. With the remaining time in the semester, you are encouraged to revisit the quizzes based on your own schedule so that you improve your scores. You will have until the day of your final exam to achieve the highest score on your quizzes. Note that you will need to determine a balance between working on quizzes and progressing in the Pie. If you complete the Beginning Algebra pie by either achieving 100% on the Goal Completion Assessment or have completed all of the topics, you will need to work on the quizzes to help achieve your ALEKS hours requirement.

Your quiz percent average represents 15% of your final grade. Each quiz covers a set of related topics, which may or may not appear in succession on ALEKS. Refer to the "Topics for Practice Quizzes" checklist to determine which topics appear on which quiz.

You are able to take the quizzes multiple times, which encourages you to try again to achieve a higher score. Your quiz score average will be generated from your HIGHEST score in each of the six quizzes.

To access the Homework Practice Quizzes, click on the HOMEWORK tab in ALEKS and choose the quiz on which you wish to work. These practice quizzes can be worked on outside of class, and you can retake the quizzes as many times as you wish. ***You SHOULD NOT be using any notes or other individuals for assistance during the Quizzes.*** Immediately after the completion of a practice quiz you can review your results and look at the explanations for problems you got wrong.

*****NOTE: You do not make progress in your PIE when you work on quizzes or practice quizzes. You only make progress when you work on the program by choosing topics from your PIE.**

(2) ALEKS Modules Completed: On the day of your final exam I will note how many modules you completed in the ALEKS program and will record the BLUE LINE percentage as your Modules Completed percentage, which represents 25% of your overall grade. You are encouraged to make as much progress as you can before the end of the semester. It is possible to achieve 100% completion, but I do not expect that of you. What I ask is that you do the best you can. If assessments "set you back," stick with it and practice those topics again so that you truly have them mastered and can move on to subsequent topics. The percentage of the pie you complete as of the day of your final exam is the percent recorded for your grade.

If you are approaching the deadline and wish to convert your GREEN LINE + BLUE LINE into a new BLUE LINE value, send me an email request or talk to me in class about sending you an assessment. The BLUE LINE value represents what you have achieved in assessments, while the BLUE + GREEN indicates assessments + learning. I will look only at the BLUE LINE when determining your final percentage for completion.

(3) Final Exam: The Final Exam will be a traditional hard-copy test and will be worth 50% of your final grade. It will not be an online assessment. It will be given at the assigned time during Finals week. Topics for the Final Exam will be chosen from the six Progress quizzes. ***The use of notes is NOT allowed during the Final.***

(4) ALEKS Time and Topics Covered: In order for you to make progress through the program, you need to spend additional time working on ALEKS outside of class time. Your goal should be to spend at least 5 hours each week on ALEKS, ***or*** be able to MASTER about 22 topics each week. To help you achieve that goal, your time/progress on ALEKS will contribute to 10% of your overall grade. If you miss class during the week, you are still responsible for the full 5 hours/topics. The "Week" will begin on Mondays. Each week your hourly totals will begin at zero (the time clock on ALEKS does not reset- - you need to keep track on your own), and can be accumulated until 11:59 p.m. the following Sunday. You will not be penalized for any deficits from the previous week, nor will you be able to carry over any excess hours. I have access to a report on ALEKS where I can see how many topics were mastered during that week's time.

The points will be awarded as follows:

5 points	5 or more hours	*OR*	22 or more topics MASTERED
4 points	4 - 4.9 hours	*OR*	18 – 21 topics MASTERED
3 points	3 - 3.9 hours	*OR*	14 – 17 topics MASTERED
2 points	2 - 2.9 hours	*OR*	10 – 13 topics MASTERED
1 point	1 - 1.9 hours	*OR*	5 – 9 topics MASTERED
0 points	fewer than 1 hour	*OR*	4 or fewer topics MASTERED

(5) Attendance: A major factor in learning mathematics is a regular and focused schedule of practice. You need to practice virtually every day, and for a considerable amount of time each day in order to establish a solid foundation in algebra. To help you work on ALEKS, classroom attendance is REQUIRED every day. While the ALEKS program is available online, you are required to come to class to work during the designated time. I will be keeping track, and may contact you if you miss too many classes. The benefit to attending class each day is to receive information that is shared during class time, and to have an opportunity to ask questions of the instructor. It is important to create a good habit regarding class attendance, so for every 3 unexcused absences you have, your grade will be lowered a letter grade. If you are going to miss a day of class, send me an email letting me know and it will not be regarded as an unexcused absence.

Completion of "Beginning Algebra" Course: You have completed an ALEKS course when you have achieved a ***Goal Completion Assessment*** score of 100%. ALEKS may send you notice that you have completed the course when you have completed all of the topics in the course, but you are not officially done until you have achieved 100% on the Goal Completion Assessment.

Schedule: Your starting point and rate of progress are based on your initial assessment and learning rate. Because ALEKS allows students to work at their individual pace, students will be at a variety of places in the material throughout the semester. Still, in order to pass the course and move into the subsequent course you will need to demonstrate sufficient knowledge of the material within the semester's time constraints.

It is possible that some of you will actually complete the ALEKS course before the calendar indicates the semester is over, and that's fine. If you have achieved a score of 100% on the Goal Completion Assessment and scored 100% on all of your quizzes, you may have the option to take the final exam early. And it is possible that some of you may reach the end of the semester without completing the material. That is also absolutely fine. However, in order to help make sure you have covered *enough* material to do well on the final, you want to aim for *at least* 80% of the pie completed.

Americans with Disabilities Act: If you are a person with a disability and require any auxiliary aids, services, or other accommodations for this class, please see me and/or Jane Eddy, the campus ADA coordinator (MC 332, 796-3194), within ten days to discuss your needs.

Academic Honesty: Per University policy found in the handbook, you are expected to do your own work for this class. This includes and is not limited to the completion of all ALEKS work, including practice within ALEKS, and assessments. One example of dishonest behavior would be allowing another student to work problems for you in ALEKS. A second example would be having another student take all or part of an online assessment for you. If it is suspected that you violated this policy, you will need to retake the assessment under supervision.

Using ALEKS

Below are the topics covered in this course.

Our basic course content →

- Arithmetic Readiness
  - Whole numbers
  - Fractions
  - Decimals
  - Percents
  - Geometry
  - Data analysis
- Real Numbers & Variables
  - Integers and rational numbers
  - Properties of real numbers
  - Variables and algebraic expressions
- Linear Equations & Inequalities
  - Linear equations
  - Applications
- Functions, Lines, Systems of Equations
  - Graphing linear equations and inequalities
  - Properties of lines
- Integer Exponents & Polynomials
  - Exponents
  - Polynomial arithmetic
  - Factoring
- Rational Expressions & Proportions
  - Simplifying expressions
  - Solving equations
  - Applications
- Radicals & Rational Exponents
  - Square roots
  - Pythagorean theorem
- Complex Numbers & Quadratic Equations
  - Quadratic equations and functions

The policies and outline of this course are subject to change at the discretion of the instructor.

Revised 1/13/11

Acceptable and Unacceptable Behaviors During Class

One of the features of ALEKS is that it has Video Lectures and Step-by-Step Animations with sound available as supplementary resources. In order to hear these items, you need to have a set of headphones as there are no speakers attached to the computers.

Also, some students enjoy listening to music while working on the computer. I am okay with that, as long as you follow the guidelines below:

ACCEPTABLE	UNACCEPTABLE
Pandora – but don't be revisiting to change songs.	YouTube.
MP3 Player	
Volume at a reasonable level.	Volume so high that it can be heard by another classmate.
ALEKS is the only internet item that should be open.	Email open.
	Facebook open.
	Working on other homework.
	Surfing the web
Using the calculator on the computer.	Using the calculator on your cell phone.
	Texting.
Following along with the lecture.	Abusing the rules above during lecture.

During lecture, no one is allowed to wear headphones.

CELL PHONES SHOULD BE TURNED OFF AND PUT AWAY!
If I see it sitting out on your desk, I will take it away and you can have it back at the end of class.