Math 95 with ALEKS

3 credits • Spring 2012

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Office Hours:
Tuesday 12:30-3:00
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Overview:
Math 95 is a first course in algebra. Topics covered include the fundamental operations on real numbers, first degree equations, inequalities in one variable, polynomials, integer exponents, and solving quadratic equations by factoring. This is a self-paced math course in which each student works to complete an individual goal consistent with his or her skill level.

Learning Objectives:
- Demonstrate and apply the basic properties of real numbers such as the commutative, associative, distributive laws, identity elements and additive and multiplicative inverses and perform operations over the real numbers.
- Interpret and apply rules of the order of operations involving real numbers.
- Evaluate expressions by substituting values for variables.
- Translate English into algebraic expressions and develop mathematical reasoning.
- Simplify algebraic expressions.
- Apply the rules of exponents over the Real numbers.
- Evaluate roots and radical expressions.
- Solve linear equations and inequalities in one variable.
- Solve and graph linear equations and inequalities in two variables.
- Evaluate polynomial expressions.
- Perform basic polynomial factoring.
- Solve quadratic equations by:
  - Applying the zero product property and relating it to factors of polynomials.
  - Solving a quadratic equation algebraically by factoring.

ALEKS Course Code:
When you first register with ALEKS, you'll be asked to supply a code for the course you are taking. Please use the following code: **TDLRH-C34GN**

Course Structure and Approach:
The course uses ALEKS on-line instructional software and will require that each student have access to the web site: http://aleks.com/. You will be able to get immediate assistance from the instructor during the designated class periods. The instructor will give supplemental mini-lectures on important subject areas.

ALEKS Learning Modules—The mathematical content in this class is mainly delivered through ALEKS, an interactive on-line learning environment. Students work at their own pace and may access course materials through any computer connected to the internet.

ALEKS classes differ from ordinary lecture-and-textbook classes in a few ways. Where an ordinary class covers the curricular material from A to Z, ALEKS will only drill the student in material where he or she has a deficiency. ALEKS does not take you through material you already know. Therefore every ALEKS course begins with an *initial assessment* so ALEKS can find out what you know and what you don't know. The rest of the time in class is spent only on the part of the curriculum you don't know. You will be re-assessed at regular intervals so ALEKS can see if you retain the material

have learned. ALEKS' approach to learning is: *Fill in the gaps in your knowledge so you can reach your semester goal.*

ALEKS Assessments:
ALEKS uses regular assessments to assess your progress towards your semester goal. Assessments are comprehensive, which means that *every* assessment will assess the *entire* course! In some sense, you are taking a comprehensive final exam every time you take an ALEKS assessment. Therefore, assessment scores will typically be low at the beginning of the semester, but in your quest to reach the semester goal, you gradually acquire more knowledge and as a result, your assessment scores improve. Ideally, towards the end of the semester, your will master all the course material and your scores will approach 100%.

It is *very important* that you do all ALEKS assessments without help in any form! Do not use any books or notes. Do not use a calculator unless it is available from the brown ALEKS toolbar at the top of the screen. Getting assistance or "cheating" on ALEKS assessments will not improve your grade, but it will cause ALEKS to start your learning exercises at a level which is beyond your ability. ALEKS will eventually adjust to meet your specific needs.

Initial ALEKS Assessment—The first time you login, ALEKS will do an initial assessment of your algebra skills. The initial assessment is un-proctored—you will take it on your own. It does not count in any way towards your grade. This assessment is used by ALEKS to determine what material you are ready to learn.

Mid-Semester ALEKS Assessments—On-line assessments of your progress are scheduled after every 20 ALEKS items or so are completed. These assessment checks whether you are able to retain the material you have covered. Your continued progress in the class depends on how well you do on these assessments: You receive credit for all items in which you show mastery. Any item you do not master is listed as yet to be completed. *This means than an assessment could set you back!* This could happen if you "forget" an item from earlier in the course, and is unable to show mastery of the item in the assessment. In this case you'll need to repeat the item. Mid-semester assessments are taken on your own, they are un-proctored, and don't count towards your grade. The best strategy when doing assessments is to be honest, and do the best you can. If you don't know how to solve a problem on the assessment, just click the "I Don't Know" button.

Final ALEKS Assessments—You must qualify for the final assessment—see conditions in the *Grading* section below. The final ALEKS assessment is a proctored assessment. No help of any kind is allowed: no books, no notes. It is similar to the ALEKS assessments you have been taking during the semester. You can think of this assessment as your final exam.

- Students that complete the pie mid-semester should make arrangements with the instructor to take the final assessment *within two weeks of completion*. Please note that you have not completed the pie until ALEKS gives you notice that you have done so.
- All other students must take the final at TMCC during the last week of classes.
- Students may be allowed to attempt the final assessment multiple times to improve their final grade.

Your Goal for the Semester:
ALEKS presents the course curriculum in the shape of a pie, which can be accessed by clicking the "My Pie" icon in the brown ALEKS toolbar at the top of the screen. Each slice of the pie represents a "chapter" of material which contains the math learning items you are ready to learn. The pie is "dynamic" and changes as you progress throughout the semester. To see what items you are ready to learn now, hover the mouse over one of the slices in the pie, and items you are ready to learn appears. Click on any one of these to begin to study math.

Pay Close Attention to the Mastery Pie—It is important that you monitor your progress regularly. By doing so, you can follow your current grade throughout the semester, and anticipate when you need

to put in a little extra time studying, if needed. It may help you plan better and prevent a catch-up situation at the end of the semester. Your Mastery pie score is a good indicator of your progress in the course - you can think of it as your current score.

Your Mastery pie score is listed under the "Report" link in the ALEKS toolbar. It is based your percent score on the Mastery Pie.

Attendance:
Attendance is checked every class period. Students are required to come to class on time and to stay for the entire class period. Any student who has missed more than three classes may be dropped from the roster.

ALEKS Time Requirements:
In order to pass this class, you must log a minimum of 8 ALEKS hours every week. Otherwise you will be administratively withdrawn from the class. This means that at the end of week 1 of the semester you must have logged 8 hours. At the end of week 2 you must reach 16 hours, at the end of week 3 you must reach 24 hours, etc. Only one single excuse from this policy is permitted, and you must be caught up by the end of the following week. You may work ahead of schedule, but you cannot fall behind.

- Midnight on Sunday is considered the end of the week. You must log your 8 weekly ALEKS hours by this time.
- Please note that the 8 hour weekly requirement is a **minimum requirement**. Some students need to spend considerably more time on the course in order master the course materials. **The recommended amount is to spend 10-12 hours per week on ALEKS.**
- ALEKS keeps track of the total hours you spend working on math: To check, go to ALEKS, click the **Options**-button, and look under **Hours Spent**. Keep a regular eye on this number to make sure that you put in enough hours.
- If you work ahead of schedule, and complete the course early, you are exempt from the 8 hour weekly attendance requirement for the remaining weeks of the semester.
- **In any three-week period, if your hours logged in ALEKS are below 20 or your progress is less than 15% (5% per week), you may be dropped from the class.**

Grading:
To receive a passing grade in this course, you must:
(1) Qualify for the final assessment. To qualify, you must:
- Complete 95% of your *Mastery* pie.
- Attend classes regularly.
- Satisfy the weekly ALEKS requirement of 8 hours each week.

(2) Pass the final ALEKS assessment

If you do not qualify for the final assessment, you will not pass for the semester. The final grade will be determined by your final ALEKS assessment. Letter grades will be assigned as follows:

A: 90-100% B: 80-89% C: 70-79%, D: 60-69%, Not passing: below 60%

You will need a C or better to qualify for the following class in the sequence.

Help:
It is essential that you seek help immediately if you get stuck.
- Ask questions during the class period.
- Another option is the TMCC Math Center. They have free tutoring and are open late and on Saturdays (674-7517). They are located at TMCC, in the Vista Building, Room B106. Please check the Tutoring Center webpage for more info.

TMCC's Americans with Disability Act (ADA) Statement:
Qualified, self-identified students with documented disabilities have the right to free accommodations to ensure equal access to educational opportunities at Truckee Meadows Community College. For assistance, contact TMCC's Disability Resource Center at 775-673-7277, TTY 775-673-7888, come by the Red Mountain Building, room 315 B, or visit www.tmcc.edu/drc.