

Math 096 INTERMEDIATE ALGEBRA — 3 credits Fall 2009

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Office hours: Wednesday 11:00-3:00 Tuesday and Thursday 9:45-10:15

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Topics and Course Description: A second course in algebra. Topics covered include: graphing linear equations, solving systems of linear equations in two variables and linear inequalities, solving quadratic, rational and radical equations, factoring, simplifying rational and radical expressions and complex numbers, determining the equations of lines and solving application problems.

Learning Objectives: ★

- Solve and evaluate:
 - Linear equations in two variables
 - Systems of linear equations
 - Linear inequalities
- Evaluate exponential expressions with integer exponents.
- Translate between scientific notation and standard notation.
- Apply factoring skills to polynomials.
- Solve equations involving rational expressions and rational exponents and radicals.
- Use rational expressions in application problems including ratios, proportions, and variation.
- Solve quadratic equations and inequalities using a variety of methods.
- Use quadratic equations in application problems.

Academic responsibilities: ★

- Learn all the material covered in this course.
- Learn basic calculator procedures to solve problems.
- Take all tests and quizzes and complete homework/group work as stated in the class policy.

Text: ALEKS Course code: J4RYU-XCNPA

Calculator: A TI-83 or TI-84 graphing calculator is recommended for this course.

Prerequisite: C or better in MATH 095 or equivalent or qualifying ACCUPLACER, ACT/SAT test results.

Class Format: Lecture on new material, in-class work on ALEKS and group work. Students are expected to actively participate in class.

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. 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 Otherwise you will be administratively withdrawn from the class.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! If you complete all of the material your requirement drops to 3 hours per week.

Course Structure and Approach: 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. In short, ALEKS' approach to learning is: Fill in any gaps in your knowledge that prevents you from reaching 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, you 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 Assessment (Final Exam): The final ALEKS assessment is a mandatory, proctored assessment. No help of any kind is allowed: no books, no notes ... It is identical in all aspects to the ALEKS assessments you have been taking during the semester. You can think of this assessment as your final exam.

Grading: The final grade will be determined by your final ALEKS assessment. Letter grades will be assigned as follows:

S: 70-100%, U: below 70%.

Cheating will not be tolerated and will result in an F. The Mathematics Department does not assign the F grade in any course. If a student wishes an F be assigned, then the student must request the grade, in writing, on the day of the final exam. The attendance requirements specified in the syllabus must be observed for a student to be eligible for the letter grade option.

ADA: 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.

Student Classroom Conduct Statement: Truckee Meadows Community College encourages all students to pursue academic studies and other college sponsored activities that promote intellectual growth and personal development. Students are responsible for complying with Nevada System of Higher Education (NSHE) and college guidelines. TMCC has an obligation to maintain conditions under which the work of the college can go forward freely, in accordance with the highest standards of quality, institutional integrity and freedom of expression. These standards, procedures for reporting infractions, and processes for addressing complaints and allegations are available on the TMCC web site,

college catalog (appendix L) and the office of the associate dean of students (RDMT 120, 673-7114).