Syllabus for Math 20     Intermediate Algebra       Dr. Moya M Mazorow
2002  MTWTh 12:45 p.m.- 1:50 p.m. Room LS 205      Final  Tues Dec 9, 12-3 pm

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Prerequisites:  Completion of Math 31 with a grade of C or better.
Entry Level Skills:  Skills it is assumed you know prior to enrollment in this course

1. Simplify and perform basic operations on rational expressions.
2. Perform basic operations on polynomials.
3. Factor general trinomials at an elementary level.
4. Solve linear equations in a single variable over the rationals.
5. Solve second degree polynomial equations in a single variable over the rationals by factoring.
7. Solve first degree linear inequalities in a single variable.
8. Solve applications involving equations in a single variable.
9. Solve linear systems of two equations in two variables.
10. Graph first degree equations/ inequalities in one and two variables.

Course Description:  Topics include fundamental operations, equations and inequalities in one variable, rational numbers and functions, irrational numbers, complex numbers, quadratic equations and functions, exponential and logarithmic functions, linear and nonlinear systems, matrices and graphing.


Course Objectives:  Upon successful completion of this course, the student will be able to:

A. Simplify advanced numerical and algebraic expressions involving multiple operations.
B. Perform operations on polynomials.
C. Solve literal equations for a designated variable.
D. Solve and graph inequalities involving absolute value.
E. Solve polynomial equations by factoring.
F. Solve quadratic equations by using quadratic formula and completing the square.
G. Complete the square.
H. Solve rational and radical equations.
I. Use interval notation to express the solution to a linear, quadratic or rational inequality.
J. Solve application problems using equations.
K. Find the domain and range of linear, quadratic and absolute value relations.
L. Find domain of rational and square root functions.
M. Perform operations on functions including composition of functions.
N. Determine the inverse of a function.
O. Perform operations on complex numbers.
P. Convert between exponential and logarithmic forms.
Q. Evaluate and graph exponential and logarithmic functions.
R. Solve elementary logarithmic and exponential equations.
S. Graph parabolas and circles by completing the square.
T. Solve systems of linear equations in three variables by elimination and matrices.
U. Graph systems of linear and quadratic inequalities.
V. Evaluate simple expressions involving sigma notation.
W. Graph simple functions by vertical and horizontal translation.
Attendance: Attendance is mandatory. If you are absent five or more hours I may drop you from the class. Tardies count as half a day absent. It is your responsibility to know the rules and deadlines of the college. This information is available online or in the front of the schedule of classes. It is also your responsibility to drop yourself (by the end of the eighth week) if you are unhappy with your performance. If you are earning a D or F at the eighth week I highly encourage you to drop; notice in the rules and deadlines students attending after the eighth week may still drop if they are earning a C or better.

Student Responsibilities: Please read and understand it is your responsibility to follow through on the general information and policies outlined in the Santa Monica College Student Planning Guide. You will be responsible for reading the textbook sections before coming to class. You should set pagers, cell phones etc to vibrate. Do not answer phones in the classroom; step out into the hall. Homework is to be done daily. You are encouraged to seek help from classmates, friends, the math lab in Math 34, or from me. You should spend at least two hours a day on homework. The presentation of your work is extremely important. All work should be neat, written using complete sentences, be free of spelling errors, and show correct usage of mathematical grammar. It should have your name on it. For example: "2x=8=x=4" would contain an incorrect usage of the = symbol. You could fix this grammatical answer by writing "2x=8 therefore x=4." If a problem is presented as a story problem, your answer must be in a complete sentence and must contain units. For example: "x=4" and "There are four." would not be complete. The answer "There are four dogs." would be complete. Make sure to write your steps in order on your paper. Do not do part of a problem in one corner then some in another then maybe some at the top. Also make sure to be aware of “level” in a problem; \( \frac{2}{3} \) vs \( \frac{2}{3x} \) vs \( \frac{2}{3x} \) are these all equal? Points are deducted on exams for answers that do not follow these guidelines so start practicing good habits on the homework.

Methods of Evaluation:
- Hodge podge points: Homework, classwork, inclass quizzes, online quizzes 15% of your grade
  If we are going to cover section 2.3 in class, then you should read 2.3 before class and after class you should do homework in that section. Do not do homework during class time. Chapter Reviews will be collected. Reviews not turned in at the beginning of class on the day due will be recorded as a 0. Work must be neat, contain your work not just the answers, and show attempts on all of the assigned problems. Classwork and quizzes will be given periodically. If you are absent on the day they are given or if you fail to turn in yours when they are being collected, your score will be recorded as a 0.
- Exams 55% of your grade 9/9 9/25 10/16 11/3 11/18
  Five exams will be given. There will be no make-up exams; however, if your absence on the day of an exam is caused by an emergency (illness, car problems, etc), contact my voice mail or email that same day and your average on the final will replace the missed exam score. If you fail to contact me the day of the exam your exam score will be recorded as a 0. The final can only replace one missed exam. If you miss two exams then one exam will be recorded as a 0.
- Final 30% of your grade. It is cumulative. The cumulative final reflects your overall understanding and retention of the material presented during the term; therefore, if you do not earn more than 65% on the final you will not receive a grade higher than a D in the class. 12/9 12pm-3pm

Assignment of overall class grade.
- If your grade on the final is less than 65%, the highest grade you can earn in the class is a D.
- If your grade on the final is 65% or more, your class grade will be calculated using your weighted average.
  Weighted average=(points earned on hodge podge)/(total hodge podge points) *15+( points earned on exams)/(total exam points)*55+ points earned on final)/(total final points)*30. Your grade will be assigned using: A [90,100] B=[80,90) C=[70,80) D=[55,70) F=[0,55)