Mathematics MAT 104 : Intermediate Algebra
Fall 2006
Section A : MWF 10:30 am - 11:20 am, Room ???

Instructor: Dr. Brad Emmons
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Office Hours: Tuesday 9:30 - 10:20, Wednesday 11:30 - 12:20, Thursday, 1:00 - 2:00
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Course Materials
Intermediate Algebra, Angel (required)

Introduction
MAT 104 is a course designed for students who have successfully completed a first course in elementary algebra, or who have passes MAT 100. We will cover solutions to equations and inequalities, graphs and functions, polynomial equations and inequalities, exponents and radicals, and quadratic equations.

Exams
There will be two in-class exams as well as a final cumulative exam. The exams will test your ability to work through some of the computations, as well as your ability to apply the techniques to certain applications. The first exam is scheduled for Friday, September 29 and will count for 20 percent of your final grade. The second exam is scheduled for Friday, November 3 and will count for 20 percent of your final grade. The final exam will be held on Thursday, December 14 from 10:30 a.m. to 1:00 p.m. The final will count for 20 percent of your final grade. There will be NO make-ups for missed exams. Please look over your schedule as soon as possible. If you see a potential conflict, inform me immediately.

Homework
The best way to learn Mathematics is to solve problems. Homework will be assigned at the end of each class period and collected the following class period. I will choose 4 or 5 problems to grade in each assignment. To earn full credit for a problem, a complete solution to the problem must be submitted. Just writing down the answer will not earn full credit. In addition to points for each graded problem, 5 points on each assignment will count for completeness and neatness of the graded assignment. Late assignments will not be graded, but they will be eligible for the 5 completion points. If you are not in class the day an assignment is collected, you may turn in your assignment into my office later that day. However, your assignment will be considered late. The homework is designed to help you identify where you might have difficulties. If you encounter any trouble with an assignment or a concept, seek help! The homework will count for 20% of your final grade.

Quizzes
Every other Friday, starting with January 27th, we will have an in-class quiz. There will be a total of 6 quizzes throughout the semester. You should treat the quizzes as mini-exams, covering material from approximately 6 days worth of course work. The quizzes will consists of 4 or 5 problems similar to problems from your graded homework, and they are to make sure that you are keeping up with the concepts presented in class, and to identify where you are having problems before you take the exams. The quizzes will count for 20% of your final grade.

Attendance
Attendance in MAT 104 is extremely important. Although there is no official attendance policy, note that if you are not in class on a particular day, your homework will not be graded for a score. I will also require that you be in class at 10:30 a.m. and no later. If you are late to class, you may stay to enjoy the wonderful learning experience. But your homework grade will suffer.

Grading
Your grade in this course will be based on three main factors: homework, quizzes and exams. The homework will be worth 20% of your final grade, the quizzes 20%, and the exams 60%. In addition to these factors, minor ethereal factors such attendance, class participation, attitude, and improvement over the course of the semester can also affect your grade. To determine your final grade, 90–100% = A, 80–89% = B, 70–79% = C, 60–69% = D, 59 and below = F, with the top two percents receiving a +
and the bottom two percents receiving a −.

Calculators
The use of calculators will not be allowed on any quizzes or exams. None of the work will require any sophisticated computations. You may use a calculator when working on your homework to check your work. However, since will not be allowed to use it on the exam, I suggest you do as much work without your calculator as possible.

Important Dates
Monday, September 4 – Last Day to Drop/Add
Friday, September 29 – Exam I
Monday, October 9 – Autumn Break (no class)
Tuesday, October 10 – Follow Monday Schedule
Friday, November 3 – Exam II
Friday, November 3 – Deadline for WD or P/F
Wednesday, November 22 - Sunday, November 26 – Thanksgiving Break (no class)
Friday, December 8 – Last Day of Classes
Saturday, December 9 – Study Day
Thursday, December 13, 10:30 a.m. - 1:00 p.m. – Final Exam

Suggestions
Come to class with your homework assignment completed every day
Study for at least 30 minutes each day in addition to completing your homework assignment
Read the section we will be covering before we cover it in class
Do not fall behind!
Come to office hours to discuss homework and concepts. I am here to help!
Syllabus
MAT 104 : Intermediate Algebra
Term : Fall 2006

Week 1 August 30 Course Policies, Syllabus
September 1 Section 2.1 – Solving Linear Equations

Week 2 September 4 Section 2.2 – Problem Solving and Using Formulas
September 6 Section 2.3 and 2.4 – Applications of Algebra
September 8 Section 2.3 and 2.4, Quiz I

Week 3 September 11 Section 2.5 – Solving Linear Inequalities
September 13 Section 3.1 – Graphs
September 15 Section 3.2 – Functions

Week 4 September 18 Section 3.3 – Linear Functions
September 20 Section 3.4 and 3.5 – Slope-Intercept and Point-Slope Forms of a Line
September 22 Section 3.5, Quiz II

Week 5 September 25 Section 3.7 – Graphing Linear Inequalities
September 27 Review
September 29 Exam I

Week 6 October 2 Section 4.1 – Systems of Linear Equations in Two Variables
October 4 Section 4.2 – Systems of Linear Equations in Three Variables
October 6 Section 4.3 – Applications of Systems of Equations

Week 7 October 10 Section 5.1 – Addition and Subtraction of Polynomials
October 11 Section 5.2 – Multiplication of Polynomials
October 13 Section 5.3 – Division of Polynomials Quiz III

Week 8 October 16 Section 5.4 – Factoring a Monomial from a Polynomial
October 18 Section 5.5 – Factoring Trinomials
October 20 Section 5.6 – Special Factoring Formulas

Week 9 October 23 Section 5.7 – Review of Factoring
October 25 Section 5.8 – Polynomial Equations
October 27 Section 6.1 and 6.2 – Rational Expressions, Quiz IV

Week 10 October 30 Section 6.2 – Rational Expressions
November 1 Review
November 3 Exam II

Week 11 November 6 Section 6.3 – Complex Fractions
November 8 Section 6.4 – Solving Rational Equations
November 10 Section 7.1 – Roots and Radicals

Week 12 November 13 Section 7.2 – Rational Exponents
November 15 Section 7.3 and 7.4 – Simplifying Radicals
November 17 Section 7.3 and 7.4 – Simplifying Radical, Quiz V

Week 13 November 20 Section 7.5 – Dividing Radicals
November 22 No Class
November 24 No Class

Week 14 November 27 Section 7.6 – Solving Radical Equations
November 29 Section 7.7 – Complex Numbers
December 1 Section 8.1 – Completing the Square

Week 15 December 4 Section 8.2 and 8.3 – The Quadratic Formula
December 6 Section 8.2 and 8.3 – The Quadratic Formula, Quiz VI
December 8 Review