

**Mathematics MAT 104 : Intermediate Algebra**  
**Spring 2005**  
**Section A : MWF 8:30 am - 9:20 am, Room B14**  
**Section B : MWF 9:30 am - 10:20 am, Room B14**

**Instructor:** Dr. Brad Emmons

**Office:** DePerno Hall 121

**Telephone:** 792-3414 (Don't leave voicemail)

**Office Hours:** Monday and Friday 12:30 - 1:30 pm, Tuesday and Thursday 1:00 - 2:30 pm

**Email:** bemmons@utica.edu

### **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 a midterm exam given in class 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 midterm exam is scheduled for Friday, March 11 and will count for 25 percent of your final grade. The final exam will be held on Monday, May 9 from 9:00 - 11:30 a.m. for section A, and Tuesday, May 10 from 12:00 - 2:30 p.m. for section B. The final will count for 30 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 25% of your final grade.

### **Quizzes**

Every other Friday, starting with January 28th, 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 8:30 am (9:30 for section B) 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 25% of your final grade, the quizzes 20%, and the exams 55%. 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**

Tuesday, January 25 – Last Day to Drop/Add

Friday, March 11 – Midterm Exam

Monday, March 14 - Friday, March 18 – Spring Break (no class)

Friday, April 1 – Deadline for WD or P/F

Tuesday, May 3 – Last Day of Classes

Wednesday, May 4, Sunday, May 8 – Study Days

Monday, May 9, 9:00 a.m. - 11:30 a.m. – Final Exam (Section A)

Tuesday, May 10, 12:00 p.m. - 2:30 p.m. – Final Exam (Section B)

### **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

MAT104 : Intermediate Algebra

Section: A/B

Term : Spring 2005

Week 1	January 19	Course Policies, Syllabus
	January 21	Section 2.1 – Solving Linear Equations
Week 2	January 24	Section 2.2 – Problem Solving and Using Formulas
	January 26	Section 2.3 and 2.4 – Applications of Algebra
Week 3	January 28	Section 2.3 and 2.4 – Quiz I
	January 31	Section 2.5 – Solving Linear Inequalities
Week 4	February 2	Section 3.1 – Graphs
	February 4	Section 3.2 – Functions
Week 5	February 7	Section 3.3 – Linear Functions
	February 9	Section 3.4 and 3.5 – Slope-Intercept and Point-Slope Forms of a Line
Week 6	February 11	Section 3.5 – Quiz II
	February 14	Section 3.7 – Graphing Linear Inequalities
Week 7	February 16	Section 4.1 – Systems of Linear Equations in Two Variables
	February 18	Section 4.2 – Systems of Linear Equations in Three Variables
Week 8	February 21	Section 4.3 – Applications of Systems of Equations
	February 23	Section 4.4 and 4.6 – Solving Systems Using Matrices and Inequalities
Week 9	February 25	Section 4.6 – Quiz III
	February 28	Section 5.1 – Addition and Subtraction of Polynomials
Week 10	March 2	Section 5.2 – Multiplication of Polynomials
	March 4	Section 5.3 – Division of Polynomials
Week 11	March 7	Section 5.4 – Factoring a Monomial from a Polynomial
	March 9	Review
Week 12	March 11	Midterm Exam
	March 15	NO CLASS
Week 13	March 17	NO CLASS
	March 19	NO CLASS
Week 14	March 21	Section 5.5 – Factoring Trinomials
	March 23	Section 5.6 – Special Factoring Formulas
Week 15	March 25	Section 5.7 – Review of Factoring
	March 28	Section 5.8 – Polynomial Equations
Week 16	March 30	Section 6.1 and 6.2 – Rational Expressions
	April 1	Section 6.2 – Quiz IV
Week 17	April 4	Section 6.3 – Complex Fractions
	April 6	Section 6.4 – Solving Rational Equations
Week 18	April 8	Section 7.1 – Roots and Radicals
	April 11	Section 7.2 – Rational Exponents
Week 19	April 13	Section 7.3 and 7.4 – Simplifying Radicals
	April 15	Section 7.4 – Quiz V
Week 20	April 18	Section 7.5 – Dividing Radicals
	April 20	Section 7.6 – Solving Radical Equations
Week 21	April 22	Section 7.7 – Complex Numbers
	April 25	Section 8.1 – Completing the Square
Week 22	April 27	Section 8.2 and 8.3 – The Quadratic Formula
	April 29	Section 8.3 – Quiz VI
Week 23	May 2	Review