MATH-
COLLEGE ALGEBRA WITH APPLICATIONS

Instructor:
Office:
Telephone:
Office Hours:

Class Hours: Tues., Thurs. 12:00-1:55 PM

Text: **College Algebra, Graphs & Models, 2nd. Edition**, by Bittinger, 2001
A graphing calculator is required. The TI-83 + Silver edition is the recommended calculator. I will be using both the TI-83+ Silver Edition and the TI-86 in class. If you choose to use a different calculator than these two, **it is up to you to learn how to use it.**

Credits: 4 credits, 4 class hours per week.

Prerequisites: 1) One year of high school algebra, one year of high school geometry, and completion of Math 200 (Intermediate Algebra) with a grade of C or better
or
2) One year of high school algebra, one year of high school geometry, and placement into College Algebra on the Math Placement Test.

Course Objectives:
This course includes properties of real numbers, polynomials, radicals, rational expressions, exponents, solving equations and inequalities, relations and functions, systems of equations, graphing, matrices, complex numbers, logarithms, theory of equations, sequences, series, and the binomial theorem.

Credit Transfer: If you are concurrently enrolled at MATC and a four-year institution, or if you wish to continue your education at a four-year institution after leaving MATC, it is highly recommended that you contact the Admissions department of the college or university to which you plan to transfer for more detailed credit transfer information. Be aware that, in some cases, approval is needed by the four-year institution before you register for a course at MATC and that it is the option of the four-year institution to not accept credits transferred from MATC if prior approval is not obtained.

Class Time:
The beginning of each class will be spent as a question period dealing with past assignments. The remaining time will be used to cover new material. Students are expected to take lecture notes, to do board work, to participate in class discussions, and to ask questions when they need help.

Daily Class Schedule:
You will be given a "Daily Class Schedule" describing in detail the work to be done each day of the semester. This calendar of assignments is attached to this syllabus.

Instructional Environment:
Any interference in the instructional process, or academic dishonesty on assignments or tests will not be tolerated, and will be treated with appropriate disciplinary action. According to school policy no food or drink can be permitted within the classroom. **Any sound-producing communication devices must be turned off during class.**

Assignments:

An assignment will be given, usually daily, after the instructor explains the material on which it is based. It is expected that each student will complete the assignment by the due date in order to master the topics covered. The answers to the odd problems are in the back of the book so that the student can check his/her understanding of the material.

Testing:

1. There will be 6 chapter tests plus a Midterm Exam and a Final Exam.
2. There will be no curving of grades. The grading scale follows.
3. Quizzes will be given, usually one per chapter, and count as part of the homework grade.
4. Several math labs will be scheduled during the semester and count as part of the homework grade.
5. Chapter reviews will be collected and will count as part of the homework grade.
6. All the quiz, lab, and review scores will be added together. This homework grade will count as much as one test score.
7. You may **retake** one chapter test during the semester. If you score less than 80% on one of the first 6 chapter tests, you may take it over. This re-take will be on your own time, outside of class, preferably in my office. You will receive the highest of the two test scores, but the retake score cannot exceed 85%. This re-test must be taken by **December 14, 2004.** Please make arrangements with me before that date, so I can have the re-take ready.
8. There will be a comprehensive exam based on all material covered during the semester. It will be given in two parts: midterm and final.
9. It is policy not to return chapter tests on a permanent basis. After a test is graded, it will be returned to the student for review. The test must then be returned to the instructor and placed in your folder.

Makeup Tests/Work:

Students may make up **one** missed test. All other missed tests will be recorded as a "0". Students must make arrangements with the instructor as to when make-up work can be done. The late test must be taken within **one week** of the date it was given in class**. No** late quizzes, labs, or reviews will be accepted. If they are not handed in on time, a score of "0" will be recorded.

***Grading*:**

Your final grade average will be calculated by adding your 6 chapter test scores, the homework average, the midterm, and the Chapter 7/Final, then dividing by 9. **Missing the final examination will result in a grade of U for the course.**

The grading scale is as follows:

92.5 - 100	A	72.0 - 76.9	C
89.5 - 92.4	A-	69.5 - 71.9	C-
87.0 - 89.4	B+	67.0 - 69.4	D+
82.0 - 86.9	B	62.0 - 66.9	D
79.5 - 81.9	B-	59.5 - 61.9	D-
77.0 - 79.4	C+	below 59.5	U

Six-Week Progress Grade:

The progress grade is the average of the tests given by progress report time. A score of "0" will be computed for any missing exam. All students will receive letter grades, but those with any course at a D+ or below will also receive a letter advising them to talk to their instructor for assistance.

Credit Transfer:

If you are concurrently enrolled at MATC and a four-year institution, or if you wish to continue your education at a four-year institution after leaving MATC, it is highly recommended that you contact the Admissions department of the college or university to which you plan to transfer for more detailed credit transfer information. Be aware that, in some cases, approval is needed by the four-year institution before you register for a course at MATC and that it is the option of the four-year institution to not accept credits transferred from MATC if prior approval is not obtained.

ADA Statement:

If you have a disability that impacts your classroom performance and wish to request an accommodation, contact the Center for Special Needs at (414) 297-6838. They may require

documentation regarding your disability to enable them to comply with your request. Admission of a disability is voluntary and will be handled in a confidential manner. MATC does not discriminate against individuals with disabilities and fully complies with the Americans with Disabilities Act. To ensure your academic success in this program, you are strongly encouraged to provide your instructor with a copy of the Instructor Notification Form from the Center for Special Needs.

Attendance:

Attendance will be taken daily. Attendance is vital to your success in this course. If you are absent, it is your responsibility to obtain the missed lecture notes and to do the assignment. Experience has shown that you cannot expect to successfully complete this course if you do not attend class regularly. Instructors are required to keep attendance records. If you will be absent, you may contact your instructor by calling her at 456-5340 and leaving a message. If MATC is closed because of a snowstorm or other emergency, continue working on the assignments as shown in the Daily Class Schedule so you will not get behind in your work. The official closing of MATC will be aired on Channel 10 TV. **Reminder:** Each lecture hour requires at least two additional hours of student preparation outside of class.

Withdrawals and Incompletes:

Incompletes: Incompletes are given only at the end of the semester when personal or family illness or an emergency situation prevents the student from completing the class. Incompletes are given only when the course has been carried to the end of the semester, when only one chapter test is outstanding, and when arrangements have been made with the instructor for the completion of the course requirements. Within the first two weeks of the following semester, you must make arrangements with your instructor to complete the course. Incompletes become a permanent "U" if not made up during the following semester.

If you have documented health or unusual personal problems affecting your attendance and your instructor agrees that you can make up the work, you may be allowed to continue and may be advised to use MATC support services (e.g., child care, financial aid, counseling, academic support, etc.). However, if your instructor determines you cannot complete the work or you will hinder instruction of other students, you will be withdrawn. To **appeal** you must go to the academic dean and request reinstatement. If you are appealing, you may stay in class until the drop is official, unless your presence may cause a safety hazard to yourself or others.

A. Instructor-Initiated Withdrawals:

You may be dropped for absenteeism when:

1) Your consecutive absences exceed the number of class meetings per week, or on the third consecutive absence in the case of classes that meet once each week.
2) Your attendance is sporadic (e.g., you miss seven class periods for a class meeting three periods a week), and you are unable to make up the instruction missed.
3) You fail to meet attendance requirements of licensing agencies.
4) You pose a safety hazard to yourself or others because of missed instruction critical to safe class or lab performance.
5) You have not attended class during the first two weeks of the term.

B. Student-Initiated Withdrawals:

Students who are considering dropping the course should first discuss this with their instructor, counselor, or faculty advisor before dropping. They may be able to recommend an alternative course of action. Students who wish to drop a course may voluntarily withdraw from the course up to two weeks before the last day of the semester. Course Change forms are available in the Registration office at the Milwaukee Campus or in Student Services at the regional campuses.

The last day you may voluntarily withdraw from a course without a signature is **two weeks before the last day of the semester.** You are considered enrolled in courses until you officially withdraw. You may withdraw from a course using TouchTone registration by calling 297-7462. To withdraw from a course you may also complete a Course Change Form.

Withdrawal before the last two weeks of class: Complete the Course Change Form (available in

the Registration & Records Office **or** the Academic Dean's Office).

Withdrawal within the last two weeks of class: Complete the Course Change Form (available in the Registration and Records Office or the Academic Dean's Office). Obtain the signature of the instructor **or** the Associate Dean **or** the Instructional Chairperson.

MAIN CAMPUS
Dr. Daniel Burrell, Dean of Liberal Arts & Sciences, Room M214, Phone 297-7043
Dr. Kimberly Farley, Associate Dean of Liberal Arts & Sciences, Room M214, 297-8187
Marie Dupuis, Instructional Chair, Phone 424-297-7432

NORTH CAMPUS
Dr. Nina Jo Look, Vice President, Room A200, Phone 238-2276
Betsy Stern, Instructional Chair, Phone 262-238-2255

SOUTH CAMPUS
Mr. James Walsh, Vice President, Room A200B, Phone 571-4721
Ray Gonsiorowski, Instructional Chair, Phone 571-4659

WEST CAMPUS
Dr. Wilma Bonaparte, Associate Dean Room 256, Phone 456-5323
Laura Reger, Instructional Chair, Phone 414-456-5340

Student Complaint Procedure:
MATC has established a formal system to assist students in resolving academic problems and course-related issues. In order for a complaint to be valid, the following steps must be followed in order:

Step 1: Meet with the instructor to discuss any questions related to the course (e.g., requirements or assignments) or if you are experiencing academic problems. If the issue is unresolved after meeting with the instructor,
Step 2: Meet with the associate dean of the department. If the issue is unresolved after meeting with the associate dean,
Step 3: Meet with the dean of the department. If the issue is unresolved after meeting with the dean,
Step 4: Go to the Office of Student Life for assistance.

Helpful Hints:

1. Do your work in pencil.
2. Read the text and follow the examples shown.
3. Ask questions! There is no such thing as a “stupid question.”
4. Get extra help from me or in the **Academic Support Center**, Room 249. The ASC is open 8:00 AM - 9:00 PM Mon.-Thurs. and 8:00 AM - 4:00 PM on Friday. When Weekend College is in session, the ASC is open 8:00 AM-9:00 PM on Fri. and 8:00 AM – 4:00 PM on Sat. Phone: 456-5344
5. Make a friend in class. Have coffee; exchange phone numbers. Work on homework together.
6. Videotapes for College Algebra are available in the Academic Support Center and the Library (Room 213). The library tapes may be checked out overnight.
7. See your instructor during office hours, or make an appointment. She is there to help!

MATC Core Abilities:

The Core Abilities are skills that allow students to continually adapt and learn. They have been called "employability skills," soft skills, and professional attributes. You may not be tested for all of the Core Abilities directly, but you will demonstrate or apply them to complete lessons or to improve skills. The Core Abilities and indicators are listed below, and the ones you will be focusing on in this course are checked.

Core Ability	Applies to Course (•)
Communicate Effectively	
a. Use effective oral communication skills	X
b. Use effective written communication skills	X
c. Apply standard rules of language structure, including grammar and spelling	X
d. Listen actively to others	X
e. Derive meaning from text	X
f. Communicate in a bias-free manner	X
g. Support viewpoints with evidence	X
Collaborate with Others	
a. Demonstrate respect in relating to people	X
b. Cooperate and resolve conflicts effectively	
c. Participate in shared problem solving	X
Respect Diversity	
a. Acknowledge personal prejudices and biases	
b. Appreciate perspectives of people outside own background/culture	
c. Work collaboratively with persons from other backgrounds/cultures	X
d. Demonstrate sensitivity to global issues	
Demonstrate Responsibility	
a. Attend classes as scheduled	X
b. Turn in quality work	X
c. Adhere to safety rules and regulations	
d. Act professionally to fulfill job duties within chosen field	
e. Demonstrate flexibility and self-directedness in learning	X
g. Practice environmental sensitivity in profession	
Think Critically	
a. Differentiate between fact and fiction	
b. Consider other viewpoints and perspectives	X
c. Present logical arguments	X
d. Evaluate sources of information to solve problems	X
Utilize Technology	
a. Use technology to communicate	X
b. Solve problems using technology	X
c. Use appropriate technology to manage information	X
d. Recognize the impacts of technology	X
Apply Math and Science	
a. Apply math concepts and principles appropriately	X
b. Apply scientific concepts and principles appropriately	X
c. Interpret meaning from quantitative data	X
d. Interpret meaning from scientific data	X

MATH-201
COURSE SCHEDULE
Spring, 2004 Days

Note: this class schedule is an approximate outline of the topics to be covered in the semester. Variations to this schedule will be made *at the discretion of the instructor*.

Date		Topic	Assignment
Jan.	15	Testing and Orientation	
	15	1.1 Functions, Graphs, & Graphers	pp. 64-77
	20	Introduction to Graphs & Graphers	pp. 1 -12
	20	1.2 Linear Functions, Slope, and Applications	pp. 78-95
	22	1.3 Modeling, Data Analysis, Regression	pp. 96-105
	22	1.4 More Functions	pp. 106-121
	27	Lab 1: Linear Models	
	27	1.5 Symmetry and Transformations	pp. 122-138
	29	1.5 Symmetry and Transformations cont.	pp. 122-138
		Skip 1.6	
	29	1.7 Distance, Midpoints, & Circles	pp. 147-151
Feb.	3	2.1 Zeros of Linear Functions	pp. 160-171
	3	Review for Chapter 1	
	5	**CHAPTER 1 TEST**	
	5	2.2 Complex Numbers	pp. 171-177
	10	2.3 Zeros of Quadratic Functions	pp. 178-191
	10	2.4 Graphs of Quadratic Functions	pp. 191-201
	12	2.5 Modeling, Data Analysis, Regression	pp. 202-207
	12	2.6 Zeros and Equation Solving	pp. 208-213
	17	Lab 2: Quadratic Models	
	17	2.7 Solving Inequalities	pp. 214-218
	19	3.1 Polynomial Functions & Modeling	pp. 224-237
	19	**CHAPTER 2 TEST**	
	24	3.2 Polynomial Division	pp. 237-245
	24	3.3 Theorems about Zeros of Polynomial	pp. 246-254
	26	3.4 Rational Functions	pp. 254-269
	26	3.5 Polynomial & Rational Inequalities	pp. 270-277
March	2	Chapter 3 Review	
2		5.1 Systems of Equations in 2 Variables	pp. 359-370 4
		5.2 Systems of Equations in 3 Variables	pp. 371-379
	4	**CHAPTER 3 TEST**	
	9	5.3 Matrices & Systems of Equations	pp. 380-387
	9	5.4 Matrix Operations	pp. 388-398
	11	**MIDTERM EXAM**	

March	11	5.5 Inverses of Matrices	pp. 399-404
	16	5.6 Systems of Inequalities (Skip 5.7)	pp. 405-414
	16	Chapter 5 Review	
	18	**CHAPTER 5 TEST**	
	23	4.1 Composite and Inverse Functions	pp. 282-296
	23	4.2 Exponential Functions and Graphs	
	25	4.3 Logarithmic Functions and Graphs	pp. 310-323
	25	4.4 Properties of Logarithmic Functions	pp. 324-332
	30	4.5 Solving Exponential and Log Functions	pp. 333-341
	30	4.6 Applications of Growth and Decay	pp. 341-355
April	1	Lab 3: Exponential Growth	
	1	Lab 4: Exponential Decay	
	6	Chapter 4 Review	
	6	6.1 The Parabola	pp. 427-436
	8	**CHAPTER 4 TEST**	

Spring Break: April 9-18, 2004

	20	6.1 The Parabola cont.	pp. 427-436
	20	6.2 The Circle & the Ellipse	pp. 436-445
	22	6.2 The Circle & the Ellipse cont.	pp. 436-445
	22	6.3 The Hyperbola	pp. 445-455
	27	6.3 The Hyperbola cont.	pp. 445-455
	27	6.4 Nonlinear Systems of Equations	pp. 455-464
	29	7.1 Sequences and Series	pp. 469-478
	29	Review for Chapter 6	
May	4	**CHAPTER 6 TEST**	
	4	7.2 Arithmetic Sequences & Series	pp. 479-487
	6	7.3 Geometric Sequences & Series (Skip 7.4)	pp. 488-498
	6	7.5 Permutations	pp. 504-513
	11	7.6 Combinations	pp. 513-520
	11	7.7 Binomial Theorem	pp. 521-528
	13	7.7 Binomial Theorem cont.	pp. 521-528
	13	Review for Chapter 7 & Final Exam	
	18	**CHAPTER 7 & FINAL EXAM**	

End of Semester!