#### **Course Information**

# Math 229: Fundamentals of Applied Mathematics - Section 13, Fall 2006 3 Credits: MWF 12:00-12:50p.m. Bridges Room 264

**Textbook:** College Mathematics for the Managerial, Life and Social Sciences, 6<sup>th</sup> ed, by S.T. Tan **Instructor:** Justin James, Mathematics Dept. **Office:** Science Lab Building basement 003M

**Office Phone:** 477-4011 (follow signs to the Math Department)

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**Course Description:** An introduction to differential and integral calculus with an emphasis on applications and an introduction to matrices and their applications. This course is not open to mathematics majors or minors.

**Prerequisites:** For students who entered MSUM as freshman in Fall 2001 or later, one of the following is required for admission to this course: Math 127 or a minimum ACT Math score of 24 or a minimum MNSCU math placement score of 20. Some prior knowledge of algebra is expected.

## **Course Objectives and Student Learning Outcomes:**

Upon completion of the course, students will be able to do the following:

- Demonstrate application of inductive and deductive reasoning.
- Evaluate complex relations using symbolic abstraction and generalization.
- Demonstrate problem solving using symbolic representation and manipulation.

**Course Requirements:** You are expected to complete all daily homework and writing assignments, and to take and pass all exams and quizzes at their scheduled dates and times.

Instructional Strategies: Lecture, discussion, small group work.

### **Attendance and Academic Expectations:**

You are expected to attend class regularly, and on time. The penalty for unexcused absences will be that any missed assignments cannot be made up. Each day in class, you are expected to have already read the material in your textbook pertaining to that day's lecture and to have at least attempted the problems on that day's homework assignment. During class, you should actively participate in discussions. When working in groups, you should participate in whatever the group is supposed to accomplish. You are encouraged to form groups of 3-4 students to study with and work on homework with outside of class. You should bring your book, calculator, and written solutions to recent homework problems with you to class every day.

**Homework and Quizzes:** Homework will not be collected for grading, but you will need to work the homework problems in order to succeed in this course. I will spend a few minutes of every class session answering questions on the homework, but the bulk of our time will be spent covering new material. You are encouraged to discuss homework with me outside of class during my office hours. If my office hours do not match your schedule, see me about arranging another time to meet.

Quizzes will be given in class once a week during every week in which there is not an exam. I will typically announce quizzes the day before I give them so you know to be prepared. If attendance becomes a problem, I reserve the right to give "pop" quizzes. Each quiz will be worth 10 points, and your best 10 quizzes will count towards your final grade. Many quiz questions will be similar to assigned homework problems.

**Reflection Papers:** Five or six times during the semester, you will be given a short writing assignment in which you will be asked to give your personal thoughts and reflections on some aspect of the course. These papers are required to be typed and should be about 1 page long (double spaced) – longer is ok, but no need to get carried away. These are informal papers which will be graded primarily on content and completeness, but do try write in complete sentences and to clearly express the ideas you are attempting to communicate. Each reflection paper will contribute 10 points toward your final grade. If we end up having more than five reflection papers and you manage to accumulate more than 50 total points on them, any additional points will count as extra credit points toward your final grade.

#### Exams:

There will be four unit exams in addition to a final exam, as outlined on the course syllabus. Make sure to mark the date of each exam on your calendar now, especially the final exam. The exams will be closed book, and closed notes. I will allow the use of an approved calculator, but other electronic devices (cell-phones, pda's, etc.) are not allowed. The credit given on exam questions will be proportional to the amount of correct work shown. Little to no credit will be given when insufficient work is shown, even if the final answer is correct. In your final grade, your best three midterms will be worth 100 points each, while your lowest exam will be scaled in half to be out of 50 points. The final exam will be comprehensive, and is worth 200 points.

## **Grading:**

Your final grade in the course will be computed as follows:

Quizzes:100 pointsReflection Papers50 pointsHighest 3 Unit Exams:300 pointsLowest Unit Exam:50 pointsFinal Exam:200 pointsTotal:700 points

I will compute the percentage of the total possible points each student earned during the semester, and will assign letter grades based on the following scale. I may make a slight adjustment to this scale (down, never up), but don't count on this happening.

97.0-100.0%	A+	78.5-81.4%	B-	61.5-64.9%	D
91.5-96.9%	A	76.0-78.4%	C+	58.5-61.4%	D-
88.5-91.4%	A-	70.0-75.9%	C	<58.5	F
86.0-88.4%	$\mathbf{B}+$	67.0-69.9%	C-		
81.5-85.9%	В	65.0-66.9%	D+		

## Make-up Work:

Because you are allowed to drop several scores, I do not give make-up quizzes or homework quizzes. I allow make-up exams only for <u>extreme</u> personal emergencies or for absences which are officially sanctioned by the University. I will expect written documentation these cases.

## **Special Accommodations:**

Students with disabilities who believe they may need an accommodation in this class are encouraged to contact Greg Toutges, Coordinator of Disability Services at 477-5859 (voice) or 1-800-627-3529 (MRS/TTY), CMU 222 as soon as possible to ensure that accommodations are implemented in a timely fashion.

**Academic Honesty:** You are expected to do your own work. You may work with others and get help on homework assignments, but the work you submit must be your own. During exams and quizzes you will <u>not</u> be allowed to get help from others. Cheating and plagiarism will not be tolerated in any course at any level. See the MSUM Academic Honesty policy for more information on the possible consequences of cheating.

Thanks, And Let's Have A Great Semester!!