Syllabus
Spring 2008
Math 1493, Section 001
Applications of Modern Mathematics
AGH 275, MWF 9:30

Instructor: Dr. Marvin Keener
Office: MS 530
Office Hours: MWF 8:00 -- 9:15 and 12:15 – 1:15 by appointment
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Course Objectives: This is course is intended for students who do not intend to take additional mathematics courses. The course investigates how mathematics may be applied to several practical situations of current interest. These include optimal scheduling, voting systems when there are three or more alternatives, how to make a fair division of goods and personal savings and borrowing strategies.

Prerequisites: This course requires a reasonable knowledge of High School Algebra through Algebra 2. It does not require Trigonometry. You will need a scientific calculator, one capable of handling exponents and logarithms.

Textbook: For All Practical Purposes, Seventh Edition
Author: COMAP
Publisher: Freeman

MLRC: Mathematics Learning Resource Center 744 - 5818
Location: Lower Level, Fourth Floor of the Classroom Building
Learning Aids/Services: Tutoring, Microcomputers with mathematics software

Examinations: There will be four examinations given in class with a maximum possible score of 100 points each and a final examination worth 100 points. The Final Examination will be at **2:00am on Monday, April 28, 2008**. The examinations are indicated on the class Schedule.

Makeup Examinations: There are *no* makeup examinations. If you miss an examination, you will receive a zero for that examination

Homework: The homework assignments are given in the class Schedule on the web site. It is imperative that you do the homework in a timely manner. That is to say, get the homework completed before the next class meeting. If you have any trouble with any of the problems, come see me immediately. In the Schedule there are four Quiz days. On

these days a quiz will be given based on the homework assignments and a Homework Score developed over the course of the semester worth in total 100 points.

Class Attendance: Class attendance is essential to your success in the course. There is a high correlation between poor attendance and low grades. You are expected to attend class on a regular basis and participate in class discussion.

Grading: The four examinations and the final examination provide a total of 500 points. Your individual score is determined by taking your four examination scores plus the final examination or the three highest examination scores plus your Homework Score plus your final examination score, which ever one is higher. Your grade is based on the percentage of your individual score out of 500 points. Your course grade is as indicated by: A (90% or above), B (80% -- 89%), C (70% -- 79%), D (60% --69%), and F (below 60%). I reserve the right to increase the grade for those students whose scores are close to a higher grade and who have consistently demonstrated throughout the semester a dedicated effort to participate in and out of class in order to learn the material. Any other grade, such as 'W' or 'I', are special grades and are awarded only under specific circumstances as indicated in the catalogue.

Dropping the course or Withdrawing (W): Dropping the course means canceling your enrollment in a specific course. Withdrawing means cancellation of enrollment in *all courses* and leaving the University for the balance of the semester. It is your responsibility to know and abide by all the rules, regulations and deadlines pertaining to the appropriate policy. If you consider either of these actions, discuss the process and consequences with your academic advisor prior to making your decision. There can be serious consequences that may affect your financial aid, graduation status, etc. The last day to drop this course or to withdraw from the University with an automatic grade of 'W' is Friday, April 4, 2008.

Incomplete Grade (I): The grade of 'I' is given to students who *satisfactorily* complete the majority of the course and whose work averages 'D' or better, but who are ***unavoidably*** prevented from completing the remaining course work. The conditions, including appropriate time limits for the removal of the 'I', are indicated on the official class roll by the instructor. A condition that the student must repeat the course is not permitted. The maximum time allowed to remove an 'I' is one calendar year.

Academic Dishonesty/Misconduct: The University has explicit rules governing academic dishonesty and academic misconduct. The policies are detailed in the document "Students Rights and Responsibilities Governing Student Behavior". Copies are available in dean's offices and the Office of the Provost and Senior Vice President (101 Whitehurst Hall). The University policies will be followed in this course.

Working with another person or in a study group on problems can be helpful in learning mathematics. I encourage you to work with others if you find it helpful. However, all written work submitted for a grade must be your own. Copying someone else's problem solution or showing your solution to someone else in order to possibly improve the score of another person is prohibited.

Special Accommodations for Students: All students should have a reasonable chance to succeed in this course. Therefore, if any member of this class feels that s/he has a disability and needs special accommodations, I will work with you and the Office of Disabled Students Services (326 Student Union) to provide reasonable accommodations to ensure that you have a fair opportunity to perform in the class. However, it is the student's responsibility to inform me of the disability as soon as possible after the beginning of the semester and to work with the Office of Disabled Student Services to provide all appropriate documentation of the disability.

Study Hints: Go to every class meeting and get help when you need it! Don't be afraid to ask questions, in class or out of class. The MLRC is available for tutoring and I am anxious to help you. But only you will know when you need it. I will likely not know you need help until after an examination, which is often too late.

Do the homework! As soon as possible after class, review your notes and make an outline of the class notes paying particular attention to the definitions and theorems discussed that day. Redo the examples from class in light of your outline. Then do the homework problems. Work out homework problems on scratch paper before looking at the answers in the book. Concentrate on what you are doing rather than being distracted by the radio, TV, or conversation with friends. On average you should expect to spend a minimum of two hours on homework for every class period. However you should not be discouraged if it takes you longer to complete the homework assignments. In addition, extra time will be needed to study and review for examinations.

Be neat in writing your homework! Writing out your homework neatly will make taking the Quizzes much easier. Practice in writing neatly will also come in handy in taking the examinations. You may also ask me questions by Email if you cannot come to my office hours.

Have patience with yourself! I think you will find the topics in the course interesting. You may even be surprised how mathematics is able to resolve some rather complicated (if elementary) issues. But progress takes time, and it comes most readily to those with the persistence to keep trying with the belief that, with enough effort, they can succeed. Learning mathematics always proceeds one step at a time. So it is essential to stay current in your homework and class attendance. Remember -- across this country this semester, thousands of students are going to succeed in their mathematics course. You can too!