

Mathematics of Decisions

MATH 1060 – Spring 2003

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Office Hours: Monday, Wednesday, Friday – 11:15 to 1:00 p.m. or by appointment.

Textbook: For *All Practical Purposes: Mathematical Literacy in Today's World*, 6th edition.

This course is an introduction to many different areas of contemporary mathematics. We will see how mathematical reasoning can be applied to many practical problems such as voting systems, fair ways to divide property, codes, and efficient planning and scheduling. The course does not require a lot of arithmetic or algebra, but it does require you to read and think carefully.

The course is divided into three units:

Unit One – Social Choice and Decision Making: Chapter 12 – Social Choice – The Impossible Dream; Chapter 13 – Weighted Voting Systems; Chapter 14 – Fair Division;

Unit Two – Management Science: Chapter 1 – Street Networks; Chapter 2 – Visiting Vertices; Chapter Three – Planning and Scheduling

Unit Three – Planning and Scheduling: The Digital Revolution: Chapter 9 – Identification Numbers; Chapter 10 – Transmitting Information

Assignments and test dates are posted on the calendar of the course WebCT page. You should check this page daily, particularly if you miss a class.

Attendance: Not only should you attend every class, but you should be an active participant in class. If you miss four or fewer classes, you will be allowed to replace one test grade with the final exam if you choose. There will be no make-up tests or quizzes. If you are going to be out for an extended period, please contact me as soon as possible.

Grading: There will be four tests and a final exam, as well as frequent in-class quizzes. Homework will be assigned, but not graded. The (comprehensive) final exam will contribute 25%, each test 15%, and quiz grade 15%.

Questions on the quizzes will be taken from the homework assignments. You will be allowed to use your homework when you take a quiz. Your lowest two quiz grades will be dropped. **There will be no make-up quizzes.**

Tests: Each of the four tests will cover two chapters. If you have missed four or fewer class days, you can use your final grade in the place a missed test (or any one test if you took all four). **There will be no make-up tests.**

A [90, 100]

B [80, 90)

C [70, 80)

D [60, 70)

F [0, 60)

Academic Honesty: All students are responsible for maintaining the highest standards of honest and integrity in every phase of their academic careers. The penalties for academic dishonest are severe and ignorance is not an acceptable defense. See { HYPERLINK "http://www.uga.edu/ovpi/academic_honesty/culture_honesty.htm" }, especially sections 5 and 7.