This book is generally used in Math 1050-1 to Math 1100-1. The equivalent level of the book is used in Econ 1078-3 and 1088-3.

Previous knowledge of microcomputers or software is not required. However, students should have enough time to practice and familiarize themselves with the computer and the software package program in a short period of time. This takes constant effort and great determination.

THE SOFTWARE PROGRAM: The software program we use is Microsoft Excel 2007 for Windows. It is installed on the hard disk of the computers in the classroom.

The reason we use Excel is simple. It is practical and widely available. We have been using many different spreadsheets programs in this class since 1986: VisiCalc, Lotus 1-2-3, Quattro Pro, and now Excel, depending on the most popular spreadsheet program of the time. As shown in the reference section below, we have demonstrated that the spreadsheet program is an excellent tool for computer assisted instruction (CAI) in economics and statistics. Unlike a packaged learning program, students can learn economic, statistical, and mathematical concepts and methods by actually writing the formulas directly on spreadsheets. However, no programming knowledge and skill, like BASICS, FORTRAN, C+, etc., are required.

On the other hand, many students find that the spreadsheet program is easy to learn and use, as compared with software packages like TSP, RATS, SAS, SPSS, the commands of which are oftentimes confusing, idiosyncratic, and easy to forget. They also find that Excel is useful in daily life (balancing the budget, doing financial planning, etc.), and helps them easier to get a job in business and government (Excel is required in the Business School).

FACILITIES: The computers we use are Dell OptiPlex 270 Pentium 4 with 512 Mb of memory, Microsoft Windows Office 2007 with Microsoft Windows XP Professional Operation System, which is similar for Mac based computer. The class will be held in the new Humanities Building, Room 1B45. There are 22 Dell microcomputers in the room, each with a 22" wide-screen color graphic monitor. Software programs are installed on the hard disk drive.

Microsoft Excel is also installed in the microcomputers located in the Economics Building Room 7 and Engineering Center. They are also available in Business School Library, Norlin Library Rooms 310 and M350. There are about 30 computing sites throughout the campus. The Excel program is installed in most of the sites. When they are not in use by classes, the facilities are available for individuals.

Reference books and periodicals on Excel (and other spreadsheet programs) are available at the Math/Physics Library, the Business Library, and the Boulder Public Library. There are only a few changes in Excel commands since Excel 98 was published, although the appearance of the latest Excel 2007 is quiet different from the previous versions. Hence, reference books for other versions of Excel may also be useful.

COURSE SCHEDULE

Week	Week of	Chapter	Topic
		I. Basic Economic Analysis	
1, 2	8/27	1	Total revenue, Total Cost, and Profits

6. If you are going to miss or have missed an exam, hand in an explanatory statement and **documentation** to the instructor or e-mail the instructor for approval of excused absence within 24 hours after the test time. Otherwise, no make-up test and a zero grade will be given to unexcused absence for exam.

SOME REFERENCES:

Hsiao, F.S.T. "Matrices, Regression, and Linear Programming on Spreadsheets," *Bulletin of Information Processing Center*, Otaru University of Commerce, Japan, Vol. 2, January 1991, pp. 123-141.

--------- "The Simplex Method of Linear Programming on Microcomputer Spreadsheets," *College Mathematics Journal*, A publication of the Mathematical Association of American, Vol. 20, No. 2, March 1989, pp. 153-160.

--------- "Implementation of the Gauss-Jordan Method of Matrix Inversion by Spreadsheet Macros," *International Journal of Mathematical Education in Science and Technology*, Vol. 19, No. 5, September/October 1988, 729-737.

--------- "An Evaluation of Spreadsheet Macros for CAI—with Applications to Matrix Multiplication," *Collegiate Microcomputer*, Vol. 5, No. 4, Winter 1987, pp. 333-342.

--------- "A Computational Design of Some Matrix Iterative Method Using Spreadsheets," *Industrial Engineering*, Vol. 9, No. 5, May 1987, pp. 17-26.

--------- "The Gauss Quadrature Numerical Integration—A Comparison of the Programming Method and the Spreadsheet Method," *ACCESS*, the Journal of Microcomputer A,1crocomputer SPMic Td(the Spread4dplications , 5