OBJECTIVES: The main objectives of this course is innovative uses of the personal computer in economic analysis and model building techniques. Students will acquaint themselves with the nature and properties of economic models by trial and error through individualized, computer generated exercises. The course contents may be divided into three parts: Part I Microcomputers and Quattro Pro; Part II Input-Output Analysis; Part III Linear Programming and Other Applications. The exact content and emphasis of the course may differ from year to year depending on the availability of software packages. This course will be offered in spring semesters.

TEXTBOOKS: The mathematical background of the course is contained in:

1. Hsiao, F., Lecture Notes on Microcomputer Applications in Economics, 1992. The Lecture Notes will be available at Campus Copies at Norlin Library.

PREREQUISITES: There are two prerequisites for this course. One is Econ 3808: Introduction to Mathematical Economics, which roughly covers the topics in the first 12 chapters of Chiang, A. Fundamental Methods in Mathematical Economics, McGraw-Hill, 3rd ed., or Math 1300: Calculus. Another is Econ 3070: Intermediate Microeconomics. Some relevant topics will be reviewed in the class as the needs arise.

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

Students who are taking the course for graduate credit are required to write a term paper at the end of the semester. The topic should be related to the course. In particular, the spreadsheet macro programming method should be used. Some of the topics in Input-output Analysis will be distributed later. Graduate students should also answer an extra question in the final examination (this extra question will be extra credit for the undergraduate students).

FACILITIES: The computer we use is Zenith 386/20 with 4Mb of memory. The software program is Quattro Pro, version 3.01, by Borland International Corporation. Quattro Pro is fully compatible with Lotus 1-2-3 if Quattro Pro’s Lotus menu is entered. Students familiar with Lotus 1-2-3 may easily become acquainted with Quattro Pro.

The class will be held in the Economics Building, Room 7. There are 14 Zenith 386/20 microcomputers in the room, each with an VGA color graphic monitor. Available software programs are installed on the 40mb hard disk drive.

Quattro Pro is also installed in the microcomputers located in CEI-4, CR2-1, CR2-32 in the Engineering Center. They are also available in Business Room 104 and 107, Norlin Library Rooms 310 and 350. There are about 30 computing sites throughout the campus. When they are not in use by classes, the facilities are available for individuals.

Reference books and periodicals on Quattro Pro and Lotus 1-2-3 and other spreadsheet programs are available at the Math/Physics Library and the Business Library.