I. CATALOG DESCRIPTION AND CREDIT HOURS OF COURSE:

IS130. Visual Basic Programming I. An introduction to the discipline of programming using the Visual Basic programming language in a Windows environment. Includes data types, control structures, arrays, functions and subroutines, properties, events methods, menus and dialog. Other topics as time permits. This course includes a lab component. No credit toward any CS major. PREREQUISITES: Placement in MA134 or higher. (3)

II. PREREQUISITE: Placement in MA134 or higher.

III. COURSE OBJECTIVES:

The objectives of the course are that the student will be able to

- Design the user interface for simple applications.
- Design and code simple applications in Visual Basic
- Test and debug simple applications in Visual Basic

IV. EXPECTATIONS OF STUDENTS:

Students are expected to:

* attend and participate in lecture discussions and classroom and laboratory activities.
* complete reading, homework, and exams within a given time frame.
* do and submit all assignments and program in a timely manner.
* demonstrate a working knowledge of course concepts through satisfactory performance on exams, assignments and programs.
V. COURSE OUTLINE:

This course meets four hours weekly, approximately two hours lecture and two hours lab. The hours given below are evenly divided between lecture and lab time. Topics are interleaved rather than taught strictly sequentially so the times indicated are over the whole course, not necessarily when the topic is first introduced. Case studies will be used where appropriate.

Introduction
  Computers 2
  Windows 95 2
  Visual Basic 2
  Problem solving, program development 2 8

The Visual Basic Environment
  Windows, editing, on-line help 2
  Creating a simple program 2 12

Visual Basic Fundamentals
  Objects and Events 4
  Data types 2
  Input and Output 2
  Built-in Functions 2 22

Visual Basic Procedures
  Subroutines/Functions 6
  Design issues 2 30

Control Structures
  Selection: IF, Select 4
  Repetition: Do and FOR Loops 4 38

Arrays
  Using arrays, control arrays 6
  Searching and sorting 2 46

Files
  Sequential Files 2
  Random-Access Files 2 50

Additional Topics 6 56

Tests 4 60
TEXTBOOK(S) AND/OR OTHER REQUIRED MATERIALS OR EQUIPMENT:


B. Software: Visual Basic 5.0, Microsoft Office

C. Equipment: IBM PC's or PC-compatibles running Windows 95 or higher.

BASIS FOR STUDENT EVALUATION:

A. Assignments, Labs, Quizzes (35%)
B. Tests (25%)
C. Participation (5%)
D. Final exam (35%)