PSYCHOLOGY C58F
Experimental Psychology Microcomputer Laboratory
Fall 1995

Room: S-316
Tuesday 10:00 am
Thursday 9:00 am

Instructor:	Dr. Douglas A. Bors
Office:	S-540C
Phone:	287-7468
Office Hours:	M 10:00 - 11:45 am, T 9:00 - 9:45 am, and by appointment

T.A.:	Penny MacDonald
Office:	S-567 & S-316
Office Hours:	TBA

Textbook: *Learn Basic Now* by Micheael Halvorson and David Rygmyr

Course Outline

This course has several purposes. First, it will introduce you to the microcomputer as a research tool. You will learn the fundamentals of the operation of the machine itself (the hardware), you will learn a computer language via which the machine can be made to perform specific tasks related to data collection, and you will be introduced to the basics of a common statistical software package used for analyzing data. Much of the time will be spent learning QuickBasic 4.5 (a common computer language). This is in large part a practical "hands on" course. You will be expected to do much of the work at the computer, learning by doing.

Although many of the examples and assignments in the course will be drawn from cognitive psychology, I will try to demonstrate the breadth of the microcomputer's impact throughout research in psychology. There are four realms where this influence is felt:

1) preparation of the experiment,
2) conducting the experiment and collecting data,
3) carrying out the data analysis, and
4) simulation and model construction for data interpretation.

The focus will be on preparing and conducting experiments to obtain data. Data analysis and simulation will be introduced, but the main goal concerns the first two realms.

The Computers

The Department of Psychology has the 12 IBM-XT compatible microcomputers in room S-316. You can get into this room anytime by signing out the necessary key at the front reception desk. If all keys are signed out, drop by S-316 and someone will let you in. Please note, though, that the door is never to be left open, even when there are people working inside. Remember to return the key to the front desk whenever you leave the room, even if you are only gone for a few minutes, others may be trying to get in.

Grading

Your final grade will be based on five assignments (worth 5% each), a mid-term exam (worth 25%), a final project (worth 25%), and a final exam (worth 25%). The assignments will usually be made on a thurdays and will be due in class the following thursday. These assignments will begin either the second or third week of classes. Experience tells us that it is best if you do these yourself, not as groups. These are considered individual assignments and should be treated as such. There will be a mid-term exam on October 17th. For your final project, you will write a program to implment an experiment of interest to you, the topic is to be discussed with me prior to beginning. For this project you will collect data and write a brief research report (in APA style). During the final week you will demonstrate and explain your program to the class. Your written report is due at that time. The final exam will be scheduled by the registrar. The mid-term and final exams will involve reading and debugging QuickBasic code as well as short-answer questions.

Tentative Syllabus

Week	Topic	Reading
1	The history of computers and their use in psychology	
2	Learning about the Hardware Introduction to BASIC	Chapters 1 & 2
3	PRINT & INPUT, String and Numeric variables, BASIC math operations	Chapers 3 & 4
4	Introduction to Flowcharting, Decision Making, IF & SELECT CASE	Chapter 5
5	Loops, FOR ... NEXT, WHILE, DO ... LOOP	Chapter 6
6	Random Numbers, Timing Subroutines	, Chapter 6 & 7
7	Arrays, READ ... DATA	Chapter 8
8	Strings and String Functions	Chapter 9
9	Data Files	Chapter 10
10	Introduction to Graphics	Chapter 11
11	Introduction to a Statistical Software Package	
12	Using the Statistical Software Package for your Final Project	
13	Final Project Demonstrations	