

**PSYC58F**  
**Experimental Psychology Microcomputer Laboratory**  
**Fall 1997**

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*Textbook:* *Learn Basic Now* by M. Halvorson and D. 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 to 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.

### **Grading**

Your final grade will be based on four assignments (worth 5% each), a final project (worth 40%), and a final exam (worth 40%). The assignments will be practical applications of the programming language as we cover it in the lectures. The assignments, which are considered individual homework and should be treated as such, will be due one week from the day they are assigned. Ten percent will be subtracted from the mark for each day an assignment is late. For your final project, you will write a program to implement an experiment of interest to you (the topic must be cleared with the instructor before you begin work). Your marks for your final project, which is due the final day of class, is based on the documented code for your computer program (20/40), a brief research paper (in APA style) (10/40), an in-class demonstration of our program (5/40), and a one-on-one 10 minute interview with your instructor (5/40). The final exam, which is scheduled by the registrar, will focus on the computer language and its relation to experimental design. It will involve debugging and writing QuickBasic code, as well as short-answer question.

## Tentative Syllabus

<u>Week</u>	<u>Topic</u>	<u>Chapter</u>
1	Introduction to microcomputers; Review of Experimental design	
2	Introduction to QuickBasic (QB)	1 & 2
3	Introduction to Flowcharting	
	Printing & Inputting	3
	String & numeric variables	4
4	Decision making & controlling the flow	5
5	Repetition & looping	6
	Random numbers	
	Subroutines	7
6	Data arrays	8
	Strings & string functions	9
7	Data files	10
8	Advanced Topics	11
9	Advanced Topics	
10	Introduction to Statistical Software Packages	
11	Creating Presentations	
12	Putting it all together	
13	Final Project Demonstrations	