

Programming Concepts

Instructor: Michael D. Falkow
Section: 11
Code: 06812
Lecture: Monday/Wednesday 1730 - 1845 in E-202
Lab: Wednesday 2000 - 2145 in CS-101
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- Textbook:** Nance, Douglas W., *Pascal: Understanding Programming and Problem Solving (Second Alternate Edition)*, West Publishing Company, 1992
- Materials:** Two or three IBM-compatible floppy diskettes: 5-1/4" double-sided, high density (Other types of diskettes *may* be usable). One or two 9" X 12" manilla envelopes or folders with pockets.
- Prerequisites:** Three years of high school mathematics, including trigonometry.
- Coursework:** The required coursework for this class is divided into three (3) parts:
- Lab Assignments:** There will be weekly lab assignments (approximately 12) due at the beginning of the lab class. All labs will have equal weight. Late assignments will seldom be accepted. All assignments **must** be in a manilla envelope or folder. All work is to be typed, with the exception of structure trees. All work should be appropriately labeled (the easier it is for me to read, the happier I will be when I grade it ☺).
- Quizzes:** There will be a short quiz at the beginning of each lab session. They will cover material from the lecture, lab, and text. The exercise questions in the book will provide you with a good review for these quizzes. There will be no make-up quizzes. If you cannot attend for a valid reason, you must contact me (or leave a message with the Computer Science Department) as soon as possible, preferably *before* the session meets.
- Final Exam:** The final examination will be a closed book and closed notes comprehensive test, and will cover all reading, lab, and lecture material. If you miss the final exam, the University regulations governing incomplete grades and unauthorized withdrawals will apply.

Grading Criteria: Final Course Grades will be determined using the following breakdown:

Lab Assignments:	40%
Quizzes:	40%
Final Exam:	20%

I will drop your lowest lab assignment score and your lowest quiz score. To determine your final grade, I will use a curve system with the following modifications:

100% to 90%	guaranteed A
89% to 80%	guaranteed at least a B
79% to 70%	guaranteed at least a C
69% to 60%	guaranteed at least a D

This means that no one will be penalized if the entire class does excellent work, but I will still be able to make adjustments if circumstances warrant them (i.e., a very difficult quiz and the entire class does poorly).

There will be no extra credit available. However, class participation can make the difference if you are borderline.

Since this is a college-level course, your work should not only reflect proper use of the concepts learned in this course, but it should also reflect the proper use of grammar and writing style. I will take this into account when grading your lab assignments. A good rule of thumb will be to prepare your work as if you were going to present it to an employer or customer.

Academic Dishonesty:

Cheating includes, but is not limited to, turning in work that derives from or contains someone else's work. (See the University Regulation section of the CSUF Catalog for a detailed description.) If you have any questions, please ask me. Penalties will apply to **ALL** people involved (even if someone copies your work without your knowledge--so protect your work!) The penalties can range from no credit for the work in question to failure of the course and a written statement being placed in your permanent University record.

In this course, the only collaboration that is allowed is in the debugging process. Students may help one another when trying to find the reason a program does not run correctly. No other collaboration is allowed: the design, pseudocode, and code is to be the sole work of the student submitting the work.

Approximate Lecture Schedule

WEEK	LECTURE	TOPIC	CHAPTER
1	8/30 9/1	Introduction to the course; requirements and expectations. Introduction to computers, hardware, software, DOS, the PC, Turbo Pascal Version 7.0.	§1.1-1.3
2	9/8	Writing Pascal Programs: Basic Program Structure: Heading Section Declaration Section Executable Section Data Types and Output	§1.4-1.5
3	9/13 9/15	Arithmetic Operations, Data, Variables, Input Constants, and Standard Functions	§2.1-2.3 §2.4 & 2.5
4	9/20 9/22	Subprograms: Procedures and Functions	§3.1-3.3
5	9/27 9/29	Subprograms: Procedures and Functions	§3.4 & 3.5
6	10/4 10/6	Decisions: Boolean Expressions IF ... THEN Statements IF ... THEN ... ELSE Statements Nested and Extended IF Statements CASE Statements	§4.1 §4.2 §4.3 §4.4 §4.5
7	10/11 10/13	Repetition Statements: Looping: FOR ... TO (DOWNTO) ... DO Loops WHILE ... DO Loops REPEAT ... UNTIL Loops Nested Loops Repetition and Selection	§5.1-5.3 §5.4 §5.6 §5.7

Approximate Lecture Schedule

WEEK	LECTURE	TOPIC	CHAPTER	
8	10/18	Files and Enumerations:		
		Text Files	§6.1	
		TYPE Definitions	§6.2	
	10/20	Subranges and Ordinal Data Types	§6.3 & 6.4	
9	10/25	Arrays	§7.1-7.4	
		Packed Arrays	§7.5	
	10/27	Searching Algorithms	§7.6	
		Two-Dimensional Arrays	§8.1	
		Arrays of String Variables, Parallel Arrays, and Higher Dimensional Arrays	§8.2-8.4	
10	11/1	Records	9 (All)	
	11/3			
11	11/8	Recursion	§11.1	
	11/10	Sorting	§11.2	
12		Dynamic Data:		
	11/15	Pointers	§13.1	
	11/17	Linked Lists	§13.2	
13		Dynamic Data:		
	11/22	Linked Lists	§13.3	
	11/24	Other Dynamic Data Structures	§13.4	
14	11/29	Sets	12 (All)	
	12/1			
15	12/6	Review		
	12/8			
16	12/15 (WEDNESDAY)	1700-1850	FINAL EXAM	Room E-202