The Public Authority for Applied Education and Training
The College of Business Studies
The Computer Science and Information Systems Department

Course Name: Advance Pascal Programming.

Course Number: 255

TextBook: Pascal, 5th Edition *by Elliot B. Koffman*

Suggested Grading Criteria:		
	Midterm I	10%
	Midterm II	15%
	Lab Exam	10%
	Quizzes / Programs	10%
	Programming Project	5 %
	Final Exam	50%

Course Outline:

1) Chapter Two: Problem Solving and Pascal

- Overview of Pascal, Reserved Words, and Identifiers.
- Data Types and Declarations.
- Executable Statements.
- General Form of a Pascal Program.
- Arithmetic Expressions.

2) Chapter Three: Functions and Procedures.

- Build in Functions

3) Chapter Four: Selection Structure: If and Case Statements

- Control Structures.
- Boolean Expressions.
- The IF Statement.
- Syntax Diagram.
- If Statement with Compound Statements.
- Decision Steps in Algorithms
- Nested If Statements and Multiple-Alternative Decisions.
- The Case Statement.

4) Chapter Five: Repetition: While, For, and Repeat Statements.

- The While Statement
- Using Loops to Accumulate Sums.
- Event Controlled Loops.
- Loop Design.
- The For Statement.

- The Repeat Statement.
- Nested Loops.
- Difference between While, For, and Repeat.

5) Chapter Six : Introduction to procedures and functions

- Introduction To Paramter List
- Returning Information from Procedures.
- Syntx Rules for Procedures with Paramters List.
- Scope of Identifiers.
- Functions : Modules That Returns Single Result**.**

6) Chapter Seven :   Data Types**.**

- Numeric Data Types : Real and Integer.
- The Boolean Data Type
- The Char Data Type
- Ordinal Function and Character Functions.
- Subrange Types
- Type Compatibility and Assignment Comparibility.
- Enumerated Functions

7) Chapter Eight : Text Files.

- Text Files, Data Files, and Output Files
- Using Text Files

8) Chapter Ten Arrays.

- The Array Data Sturctrue.
- Sequential Access To Array Elements.
- Arrays as Parameters and Operands.
- SubArray Processing.
- Searching and Sorting an Array.
- Arrays With Type Char Elements and Subscripts.

9) Chapter Elevn : Packed Arrays and Multidimensional Arrays.

- Two Dimensional Arrays.
- Processing Two Dimensional Arrays.

10)   Chapter Twelve : Records.

- The Record Data Type
- The With Statement
- Arrays Of Records.

Review Program 1

Write a program that read ten left or right parenthesis ***ONLY*** and tests whether there are the same number of left parentheses , (, as right parentheses ,). Or there are more or less left parenthesis than right parenthesis.

Sample Run1
Please enter brackets and parenthesis: (((( )) (( ) (
The Number of Left Parenthesis are more than the Right Parenthesis.

Sample Run2
Please enter brackets and parenthesis:)) ((( )) (( )
The Number of Left Parenthesis and Right Parenthesis are the same.

Sample Run3
Please enter brackets and parenthesis:)) ((( )) (( ))
The Number of Left Parenthesis are less than Right Parenthesis.

Review Program 2

Write a program that replaces two or more consecutive blanks by a single blank. The program terminates when you enter a star *.

Sample Run

Enter a sentence: Let's   go   to   the   movies *

Let's go to the movies