



The Islamia University of Bahawalpur

Baghdad-ul -Jadeed Campus

Course Plan

DEPARTMENT OF STATISTICS

Class: BS 3rd Statistics (Morning)

Session: 2020 -2023(M)

Instructor	Alia Munawar	Email: aliamunawar80@gmail.com
Course Title	Computer Programming(C++)-I	Program BS 3
Course Code	01303	Credit Hours 2+1

Lecture	Monday (8:00 am to10:00 am) &Tuesday(8:00 am to10:00 am)
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Course Objective:

This course focuses on a breadth-first coverage of computer science discipline, introducing computing environments, general application software, basic computing hardware, operating systems, desktop publishing, Internet, software applications and tools and computer usage concepts; Introducing Software engineering and Information technology within the broader domain of computing, Social issues of computing.

Course Outcomes:

At the End of this course you would be able to:

- Understand the introduction of computing environment
- Understand the breath-first coverage of coverage
- Understand the computer usage concept

Methods of Teaching

- Assigned readings
- Group activities & Discussion
- Student-Directed Teaching

Resource Material	Books Prescribed: .	
	2.Reference Book	
		1. Computers: Information Technology in Perspective, 9/e by Larry Long and Nancy Long, 2. Prentice Hall, 2002 / ISBN: 0130929891 3. <i>An Invitation to Computer Science</i> , introduction to C++ programming language.
	li	Handouts provided
	Web Resources	
	Web resources will be recommended time to time	
Office Help Hours	Monday (8:00 am to10:00 am) &Tuesday(8:00 am to10:00 am)	
Grading	Exam _____ Mid- Exam (30%) Final Exam (50%) Problem Session/Assignments (20%)	
Problem Session		

SEQUENCE OF TOPICS TO BE COVERED

Lecture Date	Session #	Topics (outline of main topics and sub topics)	Tutorial /Laboratory
Week 1	1 & 2	Introduction to C++ Programming language History of C++, Features of C++, basic structure of C++ program. Preprocessor Directives, Header Files, Main () Function.	Question & Answer Session/General
Week 2	3 & 4	Problem solving techniques Program, Algorithm and Flowchart. Flowchart symbols and limitations.	

			Discussion related to the Topic
Week 3	5 & 6	Programming Language Structure High-level Language and low- level Language. Data types int, float, char etc.	
Week 4	7 & 8	Characteristics Machine language, Assembly language, Objective language, Procedural language and non- procedural Language.	
Week 5	9 & 10	Quiz	All Covered Topics
		Control Structure Types of Control Structure Sequential Structure, Selection Structure and Repetition Structure. C++ Statements, Token and whitespaces. Simple Programs.	Question & Answer Session/General Discussion related to the Topic
		Language Processor. Compiler, Interpreter and Assembler. Source code and Object code.	
		Debugging in Turbo C++ Syntax errors, Logical errors and Run-time errors. Identifier, Identifier types, keywords,	
Week 6	11 & 12		
Week 7	13 &14		
Week 8	15	Variables Declaration and Initialization. Variables Rules .Integer overflow and integer underflow.	
		Quiz	All Covered Chapters
Week 8	16	Course/Discussion from session 1- 16	
<div>Mid Term Exam</div>			
Week 9	17 & 18	Arithmetic Operators including different programs .Scientific or Exponential Notations. Range and Precision with Examples.	
Week 10	19 & 20	Looping For loop, while loop and do-while loop with examples.	Question & Answer Session/General Discussion related to the Topic
Week 11	21 & 22	Escape Sequences Purpose and Programs.	
		Quiz	All Covered Chapters
Week 12	23 & 24	Programs related to Relational Expressions ‘If’ statement and ‘if-else’ statement.	Question& Answer Session/General Discussion related to the Topic
Week 13	25 & 26	Programs related to Compound Conditions AND operator (&&), OR operator (), NOT operator (!).	
Week 14	27 & 28	Arrays Advantages/Uses of Arrays and Initialization.	

		Quiz	All Covered Chapters
Week 15	29 & 30	Programs One dimensional Arrays, Two dimensional Arrays and Three dimensional Arrays. .	Question& Answer Session/General Discussion related to the Topic
Week 16	31	Revision of all covered topics & Quiz	
	32	Course/Discussion from session 1- 32	
Final Term Paper			

Student Evaluation criteria:

Attendance	5%
Presentation / Assignments/Case study	5%
Surprise Test/Sudden Test , Quizzes	5%
Class Participation	5%
Mid Term Paper	30%
Final Term paper	50%
Total	100%

Student Responsibilities:

Students must attend their classes. Failure to attend the class may result in failure in the course. Students must also arrive on time and remain in the class for the entire period. Cellular Phones and Beeper must be Turned off (Proper classroom decorum [behavior] adopts, Course outlines and calendars explain requirements and assignments, students are responsible for knowing what they say. Students are also responsible for doing all assigned work on time. Excessive absences (more than 03) will result in “F Grade”. Students may prepare Sketchbook for taking notes and for references.

Instructor/Tutor

Approved by:

Dean/ Chairman/ HOD/Subject Specialist/Program Coordinator