

# VEER NARMAD SOUTH GUJARAT UNIVERSITY

## B.C.A.

Effective From 2008-09

### Teaching and Evaluation Scheme

Semester VI <sup>th</sup>							
Paper No	Subject	Teaching Time	External Exam		Internal Exam.		Total Marks
		Lect./Prac.	Duration	Marks	Duration	Marks	
601	Computer Graphics	4.5 Hrs./Week	3 Hrs.	70	-	30	100
602	Information Systems Applications Development	4.5 Hrs./Week	3 Hrs.	70	-	30	100
603	Project	3 Months	-	210	-	90	300
	TOTAL			350		150	500

**Veer Narmad South Gujarat University, Surat**  
**Proposed Syllabus fro BCA VI Semester**  
**Effective from July 2008**  
**Paper No: 601 Subject: Computer Graphics**

1. Graphics Systems
  - 1.1 Video Display Devices
  - 1.2 Refresh CRT
  - 1.3 Random Scan Display
  - 1.4 Color CRT
- Direct View Storage Tube
  - 1.2 Introduction to graphic standards
2. Geometry and line generations
  - 2.1 Geometry
  - 2.2 Frame Buffer
  - 2.3 Line generation DDA Algorithms (Only Theory)
    - 2.3.1 VECGEN
    - 2.3.2 Bresenham
  - 2.4 Line Styles
3. Polygons
  - 3.1 Polygon Tests
  - 3.2 Inside Tests
  - 3.3 Polygon Filling Algorithms (Only theory)
    - 3.3.1 Flood fill
    - 3.3.2 Scan Line
    - 3.3.3 Filling with a pattern
4. Transformations
  - 4.1 Introduction to Matrix and its operations
  - 4.2 Transformations
    - 4.2.1 Scaling
    - 4.2.2 Rotation about origin
    - 4.2.3 Translation
5. Introduction to advanced Graphics concepts
  - 5.1 Animations
  - 5.2 Fractals
6. Application Of Computer Graphics
  - 6.1 Presentation Graphics
  - 6.2 Entertainment
  - 6.3 Education and training
  - 6.4 image Processing

**Reference Books:**

1. Donald Hearn & m. Pauline Baker- Computer Graphics, Second Edition Prentice Hall India
2. Harrington S- Computer Graphics – Tata Mcgraw Hill
3. Giloi W.K. – Interactive Computer Graphics – Prentice Hall India
4. Newman W. & Sproul P.F. – Principles of Interactive Computer Graphics, McGraw Hill
5. Rogers D.F. –Procedural Elements for Computer Graphics McGraw Hill

**Veer Narmad South Gujarat University, Surat.**  
**Proposed Syllabus**  
**B.C.A ( 6th semester)**  
**Effective from :July 2008**  
**Paper :602 Information Systems Applications Development**

1. As Is Studies
  - 1.1 Concept of Applications
  - 1.2 Constraints and Limitations
  - 1.3 Desired Solutions
2. Requirement analysis : concept & principles
  - 2.1 Current Application Analysis
  - 2.2 Fact-finding
  - 2.3 Recording outcomes
  - 2.4 System Requirements specification
  - 2.5 Specification review
3. Business Blue Print
  - 3.1 Flow Diagram of Application
  - 3.2 Output Design
  - 3.3 Input Design
  - 3.4 Freezing Business Blue Print
4. System Design
  - 4.1 Introduction
  - 4.2 Module and Sequence
  - 4.3 Selection of platforms
  - 4.4 Effective modular design
  - 4.5 Application Resources Requirement
5. Information Systems Development
  - 5.1 Code Design
  - 5.2 Test Data Preparations
  - 5.3 Module Testing
6. Application Change Over  
Integrated Testing  
Data Creation and Conversion  
Types of Changeover  
User Training
7. System Documentation and Maintenance
  - 7.1 Documentation Essentials
  - 7.2 Documentation Methods
  - 7.3 Developer and User Manuals
  - 7.4 Review and monitoring of Execution
  - 7.5 Application Change Management

Case studies carried out in following Topics with DFD , System Flow & Structure Chart.

  - On Line Applications(Reservation & On Line Shopping)  
    , Inventory Management , Payroll System

Reference Books :

1. Richard Fairley : System Analysis & Design – Galgotia Pub.
2. System analysis & design in changing world- Satzinger, Jackson, Burd ( Thompson  
a. learning)
3. System analysis & design & Introduction to S/W Engineering  
(Prof. S. Parthasathy & Prof. B.W. Khalkar)

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**B.C.A.**

**Effective From 2008-09**

**Semester - VI**

**Paper – 603**

**SUBJECT : Project**

Three months are allocated for Project Work. All students have to Carry out project work. (Preferably in Industry). A project Report is to be submitted to the respective college at the end of the semester and the project viva will be conducted.

## Guidelines for Project

1. All centers are to submit the following reports to the examination center atleast before 1 week of examination
  - (i) The joining Report
  - (ii) Project Title Report
  - (iii) Monthly progress Reports
  - (iv) Project completion certificate from the organization
  - (v) Project completion certificate from the college.

Without above documents student shall not be allowed to appear in the examination.