

**VEER NARMAD SOUTH GUJARAT UNIVERSITY – SURAT**  
**Bachelor of Computer Application (B.C.A) 1<sup>st</sup> Year**  
**Syllabus (As Per CBCS)**

**F. Y. B. C. A. Semester 1**  
**Effective From: June-2012**

**Paper No.: 104**

**Paper Title: COMPUTER PROGRAMMING & PROGRAMMING  
METHODOLOGY**

1. **Algorithm and Flowchart**
2. **Programming Languages & Structured Programming**
  - 2.1. Structured Programming
  - 2.2. Concepts of Compiler / Interpreter Editor
3. **Constraints & Variables**
  - 3.1. Character Set
  - 3.2. Constants- needs & Definition
  - 3.3. Variables- needs & Definition
4. **Expression & Operators**
  - 4.1. Operators
  - 4.2. Expression
  - 4.3. Evaluation & Assignment of Expression
5. **Input & Output Systems**
6. **Jumping, Branching & Looping Statements**
7. **Built-in Functions : Mathematical and String Functions**
8. **Concepts Of Arrays**
  - 8.1. One Dimensional Arrays
  - 8.2. Sorting using one Dimensional Array
  - 8.3. Concept of Two Dimensional Array
  - 8.4. Arithmetic operation on two dimensional array
9. **Debugging and testing**

**Reference Books:**

1. Structured Programming Language – La Budde McGraw Hill
2. Programming Experience in BASIC- Kanitkar - BPB
3. Programming With BASIC – Gottfried - TMH
4. Programming in BASIC – Balaguruswamy - TMH