



Kannada Sangha Pune's  
**Kaveri College of Arts, Science and Commerce, Pune**

**BBA(CA)**

<b>Name of the Course:</b>	<b>Principles of Programming and Algorithms</b>
<b>Eligibility:</b>	<b>12<sup>th</sup> Pass</b>
<b>Duration:</b>	<b>30 hours</b>
<b>Fees:</b>	<b>will be announced before starting the course.</b>
<b>Number of students:</b>	<b>80</b>

**Objectives of the Course:**

1. To develop Analytical / Logical thinking and Problem solving capabilities.
2. To facilitate hands on practical sessions on Computer fundamental and Scratch Programming.

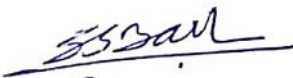
**Syllabus:**

<b>Sr. No</b>	<b>Topics</b>	<b>No. of Lectures</b>
<b>Unit 1</b>	Algorithm 1.1 Concept: Problem, Algorithm. 1.2 Characteristics of an algorithm. 1.3 Examples 1.3.1 Addition / Multiplication of integers 1.3.2 Determining if a number is +ve / -ve , even / odd 1.3.3 Maximum of 2 numbers , 3 numbers 1.3.4 Sum of first n numbers, sum of given n numbers, Sum of digits of a given number, sum of first and last digit of aNumber. 1.3.5 Digit reversing, Table generation for number n, Factorial of a number, Prime number, Factors of a number, Perfect number, Palindrome number , Armstrong number, GCD And LCM of 2 numbers.	<b>6</b>
	Flowchart 2.1 Introduction 2.2 Symbols	<b>3</b>

<b>Unit 2</b>	2.3 Draw flowcharts for algorithms implemented in chapter	
<b>Unit 3</b>	Function 3.1 Definition, Syntax. 3.2 Introduction to Library functions : such as pow( ),sqrt( ) etc 3.3 Recursion 3.3.1. Factorial of a number. 3.3.2. Sum of digits of a given number.	2
<b>Unit 4</b>	Array 4.1 Introduction 4.2 Algorithms and Flowcharts using array 4.2.1. Maximum and minimum element from an array 4.2.2. Reversing elements of an array 4.2.3. Mean and Median of n numbers 4.2.4. Row major and Column major representation of an array 4.2.5. Sum of elements of an array 4.2.6. Matrices: Addition, Multiplication,Transpose, Symmetry, upper/lower triangular .	4
	Practical Session	15

**Course Outcomes:**

1. Students will develop Analytical / Logical thinking and Problem solving capabilities.
2. Students will get hands on practical sessions on Computer fundamental and Scratch Programming.



**Mrs. Sujata Bachhav**  
Course Coordinator, BBA(CA)



**Principal**