

DR. B. B. HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Department of Computer Applications

Bridge Course Profile 2023-2024

OBJECTIVES

Bridge course is provided for newly admitted students to the BCA Course. It is conducted every year before the commencement of the first semester classes. The main objective of the course is to give basic information about computers and information technology for the students who are new to this platform. Bridge course given an opportunity to the students to explore themselves to the course of BCA.

Main objectives of the bridge course are:

- To give the basic information about computers and Information Technology.
- To give brief introduction about programming language such as C.
- To give basic knowledge of the Python Programming language for the BCom Data Science Students.

METHODOLOGY

- Class room Teaching and PPT Presentation
- Class room activities
- Practical Sessions
- Quiz

No. Of Students:240

Total Hours:30 Hrs


Principal
Dr. B.B. Hegde First Grade College
Kundapura -576201

DR. B. B. HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Department of Computer Application

Notice, Dt 28/7/2023

The Bridge course classes for I BCA and I Bcom(Data Science) will be conducted from 2/8/2023 to 15/8/2023.

The classes will be conducted in the morning session from 9.30 am to 12.30 pm. In the room no.003,201,202,107,204. Practical session will be conducted in the Computer Science Laboratory. All are required to attend the classes without fail by maintaining SOP.


Principal
PRINCIPAL
Dr. B.B. Hegde First Grade College
Kundapura -576201

DEPARTMENT OF COMPUTER APPLICATIONS

BRIDGE COURSE 2022-2023

TIME TABLE

I BCA A

DAYS/TIME	I 9.45-10.35	II 10.40-11.30	III 11.35-12.25	L U N C H B R E A K	IV 1.05-1.55	V 2.00-2.50	VI 2.55-3.45
Monday	FOC (H.K)	AI (PB)	C Prog (PS)		FOC Lab (H.K)		
Tuesday	AI(PB)	C Prog Lab (PS)			Maths(M.G)		
Wednesday	C Prog (PS)	AI (PB)	FOC(HK)		Maths(M.G)		
Thursday	Maths(M.G)	FOC Lab (H.K)			C Prog(PS)		
Friday	C Prog(PS)	FOC(HK)	AI (PB)		C Prog Lab (PS)		
Saturday	FOC(HK)	C Prog(PS)	Maths(M.G)				

I BCA B

DAYS/TIME	I 9.45-10.35	II 10.40-11.30	III 11.35-12.25	L U N C H B R E A K	IV 1.05-1.55	V 2.00-2.50	VI 2.55-3.45
Monday	Maths(SK)	C Prog(PS)	FOC (HK)		Maths(SK)		
Tuesday	FOC(HK)	FOC Lab (H.K)			C Prog(PS)		
Wednesday	FOC(HK)	Maths(S.K)	C Prog (PS)		C Prog Lab (PS)		
Thursday	C Prog(PS)	Maths(S.K)	FOC(HK)		FOC Lab (H.K)		
Friday	Maths(S.K)	C Prog Lab (PS)			C Prog(PS)		
Saturday	C Prog(PS)	Maths(S.K)	FOC(HK)				

I B.Com (E)

DAYS/TIME	I 9.45-10.35	II 10.40-11.30	III 11.35-12.25	L U N C H B R E A K	IV 1.05-1.55	V 2.00-2.50	VI 2.55-3.45
Monday	FOC (RG)	DS(MK)	Python(WS)		FOC Lab (R.G)		
Tuesday	DS(MK)	Python Lab (WS)			FOC (RG)		
Wednesday	FOC (RG)	FOC Lab (R.G)			Python Lab (WS)		
Thursday	Python(WS)	Python Lab (WS)			FOC (RG)		
Friday	Python(WS)	DS(MK)	FOC (RG)		FOC Lab (R.G)		
Saturday	FOC (RG)	DS(MK)	Maths(PB)				

Faculties

Mr.Mahesh Kumar (MK)

Mrs. Wilma S (WS)

Mr.Shreekanth (SK)

Mr. Pranam Betrabet (PB)

Mr.Harish Kanchan(H.K)

Mrs. Pavithra Shetty (PS)

Ms.Rashmi Gavadi (RG)

Ms.Megha (MG)

Principal
Dr. B.B. Hegde College
Kundapura -576201

Dr. B. B. HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Department Of Computer Application

BRIDGE COURSE – July 2023

BCOM -DATA SCIENCE: Python Programming-Syllabus

Unit 1:

Computer Basics: Characteristics computers, Classification of computers, the computer system, Application of computers. -1 hr

Computer Architecture: Central processing unit- ALU, Registers, Control unit, Memory ,Input Devices, Output Devices -1 hr

Computer software: Introduction, software definition, relationship between software and hardware, software categories. -1 hr

Computer programming languages: Introduction, Developing a program, Program development cycle, Algorithm, FlowChart, Digital computer and Digital System -1 hr

Unit 2:

Introduction to Python: Features of Python, Flavors of python, Writing and executing Python program. Identifiers; Keywords; Statements and Expressions; Variables; Operators; Precedence and Association; Data Types; Indentation; Comments; -10hrs

Unit 3:

Input Output: Console Input and Console Output, Type Conversions; Type function and Is operator Python Control Flow: Types of Control Flow; Control Flow Statements- if, else, elif, while loop, break, continue statements, for loop Statement; Basics of arrays, working with Arrays using numpy -10hrs

Unit 4:

Strings: Creating and Storing Strings; Accessing String Characters; the str() function; Operations on StringsConcatenation, Comparison, Slicing and Joining, Traversing; Format Specifiers; Escape Sequences; Raw and Unicode Strings; Python String Methods; -10 hrs

Python Functions: Built-in functions; commonly used modules, Function Definition- Syntax, Function Calling, Passing Parameters/arguments, the return statement; Default Parameters; Command line Arguments; Key Word Arguments; -6 hrs

Dr.B.B.HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Department of Computer Application

Bridge Course-July 2023

Mathematical Foundation - Syllabus

Logarithms: Introduction, Laws of operations (Statements only), Illustrations 1, Binomial Theorem: Statement only (P 334), Example 1, 2(P 336), Exercise

Analytical Geometry : Introduction, Directed Line, Quadrants, Example 1 (P 555) , Coordinates of the midpoints, (statement and example) (P 556), Distance between two points (Only formula no proof), Section Formula, External Division, Coordinates of Centroid, Area of a Triangle (Only statements)

Straight Line: Slope or gradient of a straight line, Different forms of equations of straight line (Statements- I,V,VII,IX), General equation of a straight Line (Statement Only), Circle: The equation of a Circle (example)

Trigonometry Quadrants, Measurement of Angles (I, III), Circular measure, Example 2, Exercise 3 (a) i and ii, 4 (P 483), Trigonometric functions (definition only) , trigonometric Ratios, relation between trigonometric functions I II & III only formulae (P 487), Signs of Trigonometric functions, T-ratios of standard angles
Continuity of a Function Statement only, Example 16(a) (b) (c) (d) (P 641, 642), Exercise 5, 6 (P 645) Differentiation Definition, Derivative of a power function, derivative of a constant with any function, derivative of sum of functions, derivative of product of two function, derivative of the quotient of the two functions (Only statements), Integration Definition (P 724), Indefinite Integrals, Rules of Integration, Some Standard Results (Formula Only) (I II & IX) Illustration 1, 2, 3,4,5 (P 727), Exercise 1, 2(i) &(ii) (P 730) Definite Integrals (Definition P 757), Illustration 1,2,3,5 (P 758, 759), Exercise (VI) 4(i) 1 18.1 to 18.3 18.10

Dr.B.B.HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Department of Computer Application

Bridge Course-July 2023

C Programming Bridge Course Syllabus

Unit I

INTRODUCTION TO C PROGRAMMING: Features of C and its basic Structure - C keywords - escape sequences-constants - variables - data typesformatted input and output statements - characters and strings - writing simple C programs.

Unit II

OPERATORS AND EXPRESSIONS:Arithmetic operators - unary operator - increment, decrement operators, binary operator - relational and logical operators, conditional operator - assignment operator - precedence and associativity of operators - expressions.

Unit III

CONTROL STATEMENTS: Conditional- if statement - if-else statement - Nested if statements - switch statement, while loop - do. While loop, for loop - nested loops - Unconditional statements-break statement, continue statement and goto statement.

Unit IV

C ARRAYS: One Dimensional Arrays - declaration, initialization, accessing array - multi-dimensional array declaration. Initialization - accessing - C programs using one dimensional and multidimensional arrays.

Unit V

FUNCTIONS AND STRUCTURES: Function - declaration, definition and function call - by value, by reference - recursive function - structures declaration, definition - array of structures - programs using structures

Dr. B. B. Hegde First Grade College, Kundapura

I B.Com (D.S): 2023-24

Students Name	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV
Abhilash	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Shetty Adarsh Dinesh	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Aishwarya D Rao	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Amith	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Anantheshwara Adiga	0	0	0	0	0	1	2	2	9	10	11	12	13	14	15	16	17	18	19	20	21	23	23	24	25
Anusha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Anvith	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Apoorva	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Arya	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Bhavyashree	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Bhumika	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Chaithali	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Chandan S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chinmay	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Cris Johnson Olivera	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Deekshitha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	0	0	0	20	21	22
Deepthi R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Derick D' Souza	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Divya	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Glanish Mendonca	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Gowthami	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Gravin DMello	1	2	3	4	5	6	7	8	0	0	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Harshal Cotha	1	2	3	4	5	6	7	8	0	0	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Karthik	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	09/08	09/08	10/08	10/08
Rakshitha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Ranjana	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Ranjani	1	2	3	4	5	6	7	8	9	10	11	12	13	14	0	0	0	14	15	16	17	18	19	20	21
Ranjitha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Rashmitha Adiraj Jain	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Rashmitha Kuppayya	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Rashmitha Shetty	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Ritisha G. R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
S Rakshitha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sachin Devadiga	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sakshi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Samarth S Poojary	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Samartha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	0	0	0	14	15	16	17	18	19	20	21
Sanath	1	2	3	4	5	0	0	0	0	0	6	7	8	9	10	11	12	13	14	15	16	22	23	24	25
Sanjana Devadiga	0	0	0	0	0	0	0	0	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sathwik R Acharya	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Shaine Wilson Almeida	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Shivani	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Shramitha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Shrishanth	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Shwetha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sinchana	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sneha	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Srajan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sujan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sujay V	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sujaya Kumar Shetty	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sumanth Jogi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sumanth S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sunil Kumar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Handwritten signatures and initials are present at the bottom of the page, including names like 'Sachin', 'Sakshi', 'Samarth', 'Sanath', 'Sanjana', 'Sathwik', 'Shaine', 'Shivani', 'Shramitha', 'Shrishanth', 'Shwetha', 'Sinchana', 'Sneha', 'Srajan', 'Sujan', 'Sujay', 'Sujaya', 'Sumanth', and 'Sunil'.

Roll No

Dr. B. B. HEGDE FIRST GRADE COLLEGE, KUNDAPURA

Department Of Computer Application

BRIDGE COURSE – July 2023

BCOM -DATA SCIENCE: Python Programming

Time: 1.00 Hr

Max. Marks: 25

Note: Answer any five questions from Part- A and any 3 questions from Part-B.

Part-A

(2*5=10)

1. Who invented Python?
2. Write any 2 Flavors of Python?
3. What is Variable Definition? Explain with example
4. How to use print()?
5. Write any 2 data types available in Python?
6. Mention the Logical operators available in Python

Part -B

(5*3=15)

1. Explain the if....else statements available in Python with example.
2. Explain the Bitwise operators in Python with Example
3. Explain the arithmetic operators with an example
4. Write a program to implement the addition, subtraction (+, -) by taking 2 input numbers from the Keyboard

Dr. B. B. Hegde First Grade College, Kundapura
I B. Com (D. S) : 2023-24

BRIDGE COURSE-MARKS

Sl. No	Students Name	Marks (25)
1	Abhilash	17
2	Shetty Adarsh Dinesh	12
3	Aishwarya D Rao	25
4	Amith	12
5	Anantheshwara Adiga	14
6	Anusha	25
7	Anvith	13
8	Apoorva	25
9	Arya	25
10	Bhavyashree	09
11	Bhumika	25
12	Chaithali	22
13	Chandan S	Abnt
14	Chinmay	20
15	Cris Johnson Olivera	11
16	Deekshitha	23
17	Deepthi R	25
18	Derick D' Souza	25
19	Divya	11
20	Glanish Mendonca	21
21	Gowthami	25
22	Gravin DMello	23
23	Harshal Cotha	18
24	Karthik	13
25	Kavyashree	20
26	Kishan Poojary	25
27	Kishor	25
28	M. Poorna Chandra Maiya	20
29	Manish M Poojary	24
30	Manisha	06
31	Mithilesh	25
32	Nagaraj	24
33	Namratha	25
34	Naveen	25
35	Naveen	20
36	Navya	25
37	Neha	25

38	Nikhitha	25
39	Nikshith	19
40	Shetty Niranjan	06
41	Nisha Suwin	25
42	Nishmitha	25
43	Pavan	21
44	Pavan KL	Absent
45	Pavithra	25
46	Poojari Akash Suresh	25
47	Poornima K	23
48	Pranaya	14
49	Prashanth Gowda	25
50	Praveen	25
51	R. Karthik Bairy	Absent
52	Rajath Kumar	25
53	Rakshan C	23
54	Rakshith Shetty	25
55	Rakshitha	23
56	Ranjana	20
57	Ranjani	24
58	Ranjitha	23
59	Rashmitha	25
60	Rashmitha	25
61	Rashmitha Shetty	25
62	Ritisha G. R	25
63	S Rakshitha	23
64	Sachin Devadiga	22
65	Sakshi	20
66	Samarth S Poojary	18
67	Samartha	25
68	Sanath	18
69	Sanjana Devadiga	11
70	Sathwik R Acharya	17
71	Shaine Wilson Almeida	25
72	Shivani	23
73	Shramitha	21
74	Shrishanth	16
75	Shwetha	23
76	Sinchana	18
77	Sneha	25
78	Srajan	22
79	Sujan	25
80	Sujay V	08
81	Sujaya Kumar Shetty	21
82	Sumanth Jogi	09
83	Sumanth S	24

84	Sunil Kumar	25
85	U Subramanaya	23
86	Veekshith	12
87	Vidya	23
88	Vishwas	13
89	Vishwas	25
90	Winston Mendonca	18

2/10/2023

FACULTY



HOD



PRINCIPAL

Principal
Dr. B.B. Hegde First Grade College
Kondapura -576201

Name: Rakshith Shetty
Class: 1st B.Com (Data Science)



Sub: Python Programming Roll No: 54

Part - A

1. Python invented by Guido Van Rossum and released in 1991.

2. Flavours of python:

- a) C Python.
- b) Java python.
- c) 'Ruby' python.
- d) Py Python.
- e) Iron Python

3. Variable definition is to place / container to store the value.

Variable Definition = Variable name = Value

Ex:-

no.1 = 2
no.2 = 3

Res (no.1 + no.2)
print (Res)

no.1 = 2
no.2 = 3 } variable definition

ob = 0
oi = d

4. `print("The result is:", a+b): d > 0`
`print("d not not 0")`

a=10
b=20

`print(a+b)`

and get output.

b) Bitwise OR (|) operator:

a = 60

b = 13

print(a | b) # 61

print("the number is positive")

00111100

00001101

00111101

Bitwise operators:

c) Bitwise XOR (^) operator:

a = 60

b = 13

print(a ^ b) # 49

00111100

00001101

00110001

> AND = &

> OR = |

> XOR = ^

> NOT (one's complement)

> Left shift <<

> Right shift >>

d) Bitwise NOT (~) operator:

a = 60

print(~a) # 195

00000000

00001100

11110011

a = 60

b = 13

print(a & b)

12

e) Bitwise left shift (<<) operator:

a = 60

print(a << 2) # 240

a = 15

print(a)

print(a << 4) # 240

00111100

00001100

00110000



Sub: Python programming

ROLL NO: 54

(a << 2)

00111100
 11110000

(a << 4)

00001111
 11110000

2 | 15
 2 | 7-0 = 7
 2 | 3-0 = 3
 1-1

15 = 1111

f) Bitwise Right shift (>>) operator:

a = 60
 print(a >> 2) # 15
 a = 15
 print(a)
 print(a >> 4) # 0

- (+) Addition
- (-) Subtraction
- (*) Multiplication
- (/) Division
- (%) Modulus

(a >> 2)

00111100
 00001111

2 | 60
 2 | 30-0
 2 | 15-0
 2 | 7-0
 2 | 3-0

(a >> 4)

00001111
 00000000

60 = 111100
 15 = 1111
 0 = 0000
 0 = 0000
 print(a >> 4) # 0

4) or

```
a = int(input("enter first number"))
```

```
b = int(input("enter second number"))
```

```
print("the result is:", a+b) # 9
```

(a=3
b=6
a+b=9)

```
a = int(input("enter first number"))
```

```
b = int(input("enter second number"))
```

```
print("the result is:", a-b) # -2
```

(a=4
b=6
a-b=-2)

02