

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science meeting was held on 03 -06-2019 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr. Ganesh K. 

Mrs. Vijaylaxmi N. Shetty 

Mr. Krishna 

Dr. M.B Nataraj 

**Resolution**

1. We have finalized the syllabus for C++, Data Structures ,Graphics and Design certificate courses.
2. Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
**PRINCIPAL**  
Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 201

  
**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura

Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

Sl.No	Certificate/Add on Course Name	Staff Team
1.	Add –on course on Computer hardware and Computer Applications (Certificate Level)	Mr.Ganesh K., Mr.Krishna, Mr.Rajendra Hoblidar,
2.	Add –on course on Computer hardware and Computer Applications (Diploma Level)	Mrs.Vijaylakshmi N.Shetty, Mr.Vinayanand Naik, Mr.Sandesh.
3.	MATLAB	Mr.Ganesh K, Mr.Sandesh A. Ms.Chaya Kharvi
4.	Android App Development	Mr.Giriraj, Mr.Mukunda Ms.Poornima
5.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
7.	Windows Basics & Office Automation	Ms.Akshatha Saklathi, Ms.Nagarathna, Mrs.Shreelatha
8.	Web Development	Ms.Swathi
9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.

12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



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**BHANDARKARS' ARTS AND SCIENCE COLLEGE  
KUNDAPUR  
DEPARTMENT OF COMPUTER SCIENCE  
SYLLABUS FOR CERTIFICATE COURSE – WINDOWS AND  
MS OFFICE**

**Objective of the Course:** To inculcate basic knowledge about the computers and the office automation for the people with or without basic computer knowledge.

**Duration:** 60 hours

**Method of Teaching:** Lectures, presentations, practical classes.

**Contents of the course:**

**UNIT – I**

**Introduction to computers:** What is computer? Computer block diagram, Types of computer, hardware, software, types of software, application programs. 2 Hours

**Microsoft Windows:** Introduction to windows, Operation in Program Manager, Menu Commands in control panel, Clipboard, File Manager, Simple menu commands, Features of Writs, Menu commands in Write, Paint brush, Card file, Notepad, Calculator and Calendar. 5 Hours

**UNIT – II**

**Microsoft Office:** Introducing Microsoft Office, Common Office Tools and Techniques, Sharing information with Microsoft Office. 2 Hours

**Word Processing with Word for Windows:** Word Basics, Formatting the Text and Documents, Working with headers and footnotes, tabs, tables and sorting, working with graphics, Templates, Wizards and Simple documents. Writer's Tools, Macros, Introduction to Mail Merge. 12 Hours

  
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### **UNIT – III**

**Working with Excel:** Excel Basics, Rearranging Worksheet, Excel Formatting Tips and Techniques, Functions, Excel's chart features, Working with graphics, Command macros, worksheet as databases.

13 Hours

### **UNIT – IV**

**Presenting with Power Point:** Power point basics, Working with Text, Working with graphics, Showtime.

13 Hours

### **UNIT – V**

**Database Power with Access:** Access basics, Modifying tables and using Forms, Finding data and creating reports.

13 Hours

### **Reference Books:**

1. Introduction to computers – Peter Norton – TMH publications.
2. A Compact Guide to MS Office – Ron Mansfield

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## **Evaluation Criteria:**

### **Key to Grades**

<b><u>Grades</u></b>	<b><u>Marks Range</u></b>
A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33


### **Report on Certificate course in “Windows and Office Automation” conducted in the year 2018-19**

A certificate course of 60 hours duration on “Python” was conducted by the Department of Computer Science. The students of other than BCA and BSc(MPCs) were enrolled to the course and the strength of the course was 20. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**OFFICE AUTOMATION**  
**CERTIFICATE COURSE 2019-2020**  
**(VOCATION)**

SL.NO.	NAME
1	SHIRAKSHIA
2	PREMA
3	GURUDATT ASHOK MALLA
4	SIMRJEET SINGH
5	RUCHITHA
6	SHRIRAVANI
7	POOJA
8	GOUTHAMI
9	SHREYAS S SHETTY
10	RAJESHWARI
11	SOWMYA
12	PADMASHREE
13	VARSHA KUNDAPUR
14	ANUSHA A
15	ELVIN BRAGANZA
16	ADITHYA K.
17	SALVADI SHABHARI
18	SUKANYA BHAT
19	SANATH GURUDATT PAI
20	ARUN
21	AMITH
22	MOHAMMED SALMAN SHAIKH
23	SHAK FARAZ ISMAIL

24	BHAVYASHREE
25	SUSHMA D.
26	POORNESHWARI
27	NAKSHA KALKUR
28	SINCHANA R
29	AMITHA
30	LAKSHMI GANIGA

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**OFFICE AUTOMATION**  
**CERTIFICATE COURSE 2021-2022**  
**(VOCATION)**

SL.NO.	NAME
1	SAHANA
2	SHWETHA
3	PRATHEEKA
4	SHREYA SHANUBHAG
5	SHRADHA
6	AKSHATHA S MENDON
7	DISHA

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**WINDOWS AND OFFICE AUTOMATION**  
**CERTIFICATE COURSE 2020-2021**  
**(VOCATION)**

SL.NO.	NAME
1	PRAJNA BHAT
2	SHREYAS ACHARI

  
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**BHANDARKARS' ARTS AND SCIENCE COLLEGE, KUNDAPURA**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**CERTIFICATE COURSE 2017-18**  
**WINDOWS AND OFFICE AUTOMATION**

ROLL NO.	NAME	CLASS
170550	ARSHAL K.G	I MSP
170549	SANKETH	I MSP
170726	CHAITHRA NAGESH NAIK	I B2C
170740	SHREENIDHI G.D	I B2C
170604	ANISH H.	I MPC
170605	MADHUSUDHAN M.	I MPC
170617	SACHIN SHETTY	I MPC
170624	MANJUNATH P.NAIK	I MPC
170623	DINESH K.NAIK	I MPC
160656	SANGEETHA B.	II MPC
170255	RAKSHITHA	I B.COM

  
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**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Certificate Course 2018-19**  
**Windows and Office Automation**

Roll No	Name	Class
180266	Kishan	I BCom C3
180149	Sujatha K.	I BCom C2
180133	Navya B Shetty	I BCom C2
180217	Suparna	I BCom C3
180263	Vinutha	I BCom C3
180267	Manasa	I BCom C3
180136	Nethra	I BCom C2
180125	Ashika	I BCom C2
180126	Ashwini	I BCom C2
180732	Megha G	I BSc BZC
180748	Advi	I BSc BZC

  
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2018-19

Windows & MS-office

BHANDARKARS' ARTS &

SCIENCE COLLEGE, KUNDI

ATTENDANCE AND MARKS

RECORDS OF

Class: I B.Com Section:

Roll No.	Name	Month	07	07	07	07	08	09	09	09	12	1
		Date	07	14	21	28	11	18	25	01	08	15
		SL No.	2	4	6	8	10	12	14	16	18	20
180266	Kishan		2	4	6	8	10	12	14	16	18	20
180149	Shriya K		2	4	6	8	10	12	14	16	18	20
30133	Navika D Shetty		2	4	6	8	10	12	14	16	18	20
180214	Suparna		2	4	6	8	10	12	14	16	18	20
263	Vinukta		2	4	6	8	10	12	14	16	18	20
267	Manasa		2	4	6	8	10	12	14	16	18	20
136	Netra		2	4	6	8	10	12	14	16	18	20
087	Panchami		2	4	6	8	10	12	14	16	18	20
105	Ashika		2	4	6	8	10	12	14	16	18	20
078	Ashika		2	4	6	8	10	12	14	16	18	20
043	Rashmita		2	4	6	8	10	12	14	16	18	20
125	Ashika		2	4	6	8	10	12	14	16	18	20
126	Ashwini		2	4	6	8	10	12	14	16	18	20

1	1	2	2	3	3
12	19	2	23	2	2
22	24	24	28	30	32
14	16	18	20	22	24
20	22	24	26	28	30
20	22	24	26	28	30
16	18	20	22	24	26
16	18	20	22	24	26
16	18	20	22	24	26
14	16	18	20	22	24
12	14	16	18	20	22
12	14	16	18	20	22
12	14	16	18	20	22
12	14	16	18	20	22
12	14	16	18	20	22
14	16	18	20	22	24
18	20	22	24	26	28

II B.Com

101 Adeeba Khan

Signature of the Teacher

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Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 204



# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

(Reaccredited at "A" Grade with 3.32 CGPA)



## CERTIFICATE

The Academy of General Education, Manipal here by Certifies that

Mr./Ms.....has under gone

a Certificate Course in.....

during the year ..... and has secured .....grade.

Principal

Registrar

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**

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Mrs.Vijaylaxmi N.Shetty

Mr.Krishna

Dr.M.B Nataraj

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BHANDARKARS' ARTS AND SCIENCE  
COLLEGE, KUNDAPURA

DEPARTMENT OF COMPUTER SCIENCE

CERTIFICATE COURSE IN MATLAB


**Objectives of the Course**

MATLAB (**Matrix Laboratory**) is a powerful computer software application program for solving engineering problems. It is applicable for all engineering disciplines and many natural sciences as well. MATLAB is rich with many functions that are provided to solve engineering problems. MATLAB has been updated and extended to cover essentially all the engineering fields. By learning how to use MATLAB and having access to MATLAB, you will be able to use this software in future.

Duration: 50 Hours

SYLLABUS

UNIT-I	10 Hours
<b>CHAPTER 1. Running Matlab:</b> Starting, It's a calculator, Making script files, Running script files, Pause command, Online help, Making matlab be quiet, Debugging, Arranging the desktop, Sample script, Breakpoints and stepping	
<b>CHAPTER 2. Variables:</b> Numerical accuracy, $\pi$ , Assigning values to variables, Matrices, Strings	
<b>CHAPTER 3. Input, Calculating And Output:</b> Input, Calculating, Add and subtract, Multiplication, Complex arithmetic, Mathematical functions, Housekeeping functions, Output	
UNIT-II	10 Hours
<b>CHAPTER 1. Arrays and X-Y Plotting:</b> Colon(:) command, XY plots, Labels and titles, Generating multiple plots, Overlaying plots, XYZ plots: Curves in 3-D space, Logarithmic plots, Controlling the axes, Greek letters, Subscripts and superscripts, Changing line widths, fonts, etc.	
<b>CHAPTER 2. Surface, Contour, and Vector Field Plots:</b> Meshgrid and Ndgrid, Contour plots and surface plots, Evaluating Fourier series, Vector field plots	
<b>CHAPTER 3. Vector Products, Dot and Cross</b>	

  
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UNIT-III	
<b>CHAPTER 1. Linear Algebra:</b> Solve a linear system, Max and min, Matrix inverse, Transpose and Hermitian conjugate, Special matrices, Determinant, Norm of vector(Magnitude), Sum the elements, Selecting rows and columns, Eigenvalues and Eigenvectors, Fancy stuff	
<b>CHAPTER 2. Polynomials:</b> Roots of a polynomial, Find the polynomial from the roots, Multiply polynomials, Divide polynomials, first derivative, Evaluate a polynomial, fitting data to a polynomial	
<b>CHAPTER 3. Loops and Logic:</b> Loops, Logic, secant method, Using Matlab's Fzero,	
<b>CHAPTER 4. Derivatives and integrals:</b> Derivatives, Definite integrals, Matlab integraters	
UNIT-IV	
10 Hours	
<b>CHAPTER 1. Interpolation and Extrapolation:</b> Linear interpolation and extrapolation, Quadratic interpolation and extrapolation, Interpolating with polyfit and polyval, Matlab commands Interp1 and Interp2	
<b>CHAPTER 2. FFT(Fast Fourier Transform):</b> Fourier Analysis, Matlab's FFT	
<b>CHAPTER 3. Make your own Functions: Inline and M-files:</b> Inline functions, M-file functions, derivative function derivs.m, Definite integral function defint.m, Indefinite integral function indefint.m	
UNIT-V	
10 Hours	
<b>CHAPTER 1. Fitting Functions to Data:</b> fminsearch	
<b>CHAPTER 2. Systems of Nonlinear Equations:</b>	
<b>CHAPTER 3. Ordinary Differential Equations:</b> Decay of a Radioactive sample, Simple harmonic oscillator, Euler's method, Second-order Runge-Kutta, Matlab's Differential Equation solvers, Event finding with Matlab's differential equation solvers	
<b>CHAPTER 4. Publication Quality Plots</b>	

Text Book: Introduction to Numerical Methods and Matlab Programming for Engineers.

  
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C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “Matlab” conducted in the year 2018-19**

A certificate course of 45 hours duration on “Matlab” was conducted by the Department of Computer Science. The students of III BCA were enrolled to the course and the strength of the course was 50. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.



**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Advanced Diploma on Matlab 2019-2020**

SL. NO.	NAME
1	Rajani
2	Pallavi
3	Pavithra
4	Harshitha
5	Naima Parveen
6	Sangeetha
7	Apoorva Kiran
8	Sujana Somayaji
9	Divyavyothi
10	Anusha
11	Akshatha
12	Deepa
13	Spoorthi
14	Shreekala S Shetty
15	Nagarathna
16	Chaitanya
17	Lakshmidhevi Nayak
18	Mendhan Raksha Shekar
19	Pavithra



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Bhandarkars' Arts and Science College Kundapura  
 Department of Computer Science  
 Certificate Course on Matlab 2019-2020

SL. NO.	NAME
1	Karthik Vaidya
2	Vaibhava Hathwar T. L.
3	Akash



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 Bhandarkars' Arts & Science College  
 Kundapura, Udupi Dist., - 576 201

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Diploma on Matlab 2019-2020**

SL. NO.	NAME
1	Surabhi
2	Sindhuri H S
3	Sujay Poojari
4	Sinchana
5	Namratha N S
6	Aishwarya Panju Poojary
7	Nishmitha D
8	Arpitha
9	Sujan Maddodi
10	Aishwarya
11	Padmakshi Adiga
12	Anusha
13	Sameeksha M
14	Ratheesh Kumar
15	Pooja
16	Latha
17	Nikshitha G.S



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**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Diploma on Matlab 2019-2020**

SL. NO.	NAME
1	Karthik Vaidya
2	Vaibhava Hathwar T. L.
3	Akash
4	Surabhi
5	Sindhuri H S
6	Sujay Poojari
7	Sinchana
8	Namratha N S
9	Aishwarya Panju Poojary
10	Nishmitha D
11	Arpitha
12	Sujan Maddodi
13	Aishwarya
14	Padmakshi Adiga
15	Anusha
16	Sameeksha M
17	Ratheesh Kumar
18	Pooja
19	Latha
20	Nikshitha G.S



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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**

**DEPARTMENT OF COMPUTER SCIENCE**

**MATLAB 2017-2018**

ROLL NO.	NAME	CLASS
160879	KESHAVA	II BCA
160911	GOWTHAM	II BCA
160932	DHANRAJ M. PUTHAN	II BCA
160934	KEERTHAN ACHARYA	II BCA
160894	SHASHANKA MOGAVEERA	II BCA

  
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**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Certificate Course 2018-19**  
**MATLAB**

Roll No	Name	Class
160958	Nagashree	III BCA B
160959	H. K. Padmashree	III BCA B
160960	Rajath Manjaya Shetty	III BCA B

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**

**DEPARTMENT OF COMPUTER SCIENCE**

**MATLAB**

**CERTIFICATE COURSE 2020-2021**

**(VOCATION)**

SL.NO.	NAME
1	SNEHA
2	RAMITHA
3	KAVYA
4	SHREELAKSHMI
5	NIKITHA
6	PREETHI
7	CHAITHRIKA
8	BHOOMIKA
9	SUSHMITHA

  
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2019-20

BHANDARKARS ARTS &amp;

RECORDS OF

MNTLAB

Section :

Class:

Roll No.	Name	Month	8	8	12	18	12	1	1	1		
		Date	17	24	31	27	28	4	11	25		
		Sl. No.	2	(4)	(6)	(8)	(10)	(12)	(13)	(15)		
150	457 Sindhu H.S		2	4	6	8	10	10	11	11		
	418 Nishmitha		2	4	6	8	10	11	12	14		
	429 Aishwarya		2	4	6	8	10	11	12	14		
	424 Manoj Sujay		2	2	4	6	8	10	10	12		
	529 Rathesh		2	4	6	8	8	10	10	12		
	489 Sujan Maddodi		2	4	6	6	6	8	8	8		
	402 Anurha		0	2	4	6	8	10	10	12		
	430 Apitha		0	2	4	6	8	10	10	12		
	451 Latha		0	2	2	4	6	8	8	10		
	433 Poyu		0	2	2	4	6	8	8	10		
	523 Aishwarya		0	2	4	4	4	4	4	6		
	516 Sameeksha		0	2	4	4	4	6	6	6		
	509 Neelika		0	2	2	2	2	2	2	2		
	437 Surabhi		0	2	4	7	7	8	8	8		
	405 Padmasri		0	2	4	4	4	4	5	7		
	467 Namrata		0	0	2	4	4	5	6	6		
	468 Sanchana		0	0	2	4	4	5	6	6		
	432 Nikshitha		0	0	2	4	6	8	8	10		

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# Academy of General Education, Manipal

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## CERTIFICATE

The Academy of General Education, Manipal here by Certifies that

Mr./Ms.....has under gone

a Certificate Course in.....

during the year ..... and has secured .....grade.

Principal

Registrar

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**Department of Computer Science**

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Mr.Krishna

Dr.M.B Nataraj

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5.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
7.	Windows Basics & Office Automation	Ms.Akshatha Saklathi, Ms.Nagarathna, Mrs.Shreelatha
8.	Web Development	Ms.Swathi
9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.

12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



PRINCIPAL

Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 201

BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA



DEPARTMENT OF COMPUTER SCIENCE

CERTIFICATE COURSE IN ANDROID APPLICATION DEVELOPMENT

**Objectives of the Course**

Android is an open-source Linux-based operating system designed mainly for smart phones and tablets. It is maintained as an open source project by Google. This open source code and licensing allows the developers and device manufacturers to modify the software according to their needs. Android platform has brought about cutting-edge technologies in app development.

Owing to the popularity of Android, Mobile Apps development industries are considering Android Application Development as one of the best remunerative business opportunities. The need to hire knowledgeable mobile application developer is intense. India is considered as a country with several globally recognized IT hubs.

One of the main reasons for this is that software as a service is highly cost effective. Before the acceptance of Android, the mobile app development industry was dominated by Proprietary OS like Symbian and iOS. With Android, came the option for dynamic app development at a lower cost. When thinking of the scope of Android Application Development in India, we can take these three primary notions into consideration:

**Duration: 50 Hours**

**SYLLABUS**

	UNIT-I	10 Hours
<b>JAVA Concepts:</b> OOPs Concepts, Inheritance in detail, Exception handling, Packages & interfaces, JVM & .jar file extension, Multi threading (Thread class & Runnable Interface)		
<b>Introduction to Android:</b> What is Android?, Setting up development environment, Dalvik Virtual Machine & .apk file extension, Fundamentals, Basic Building blocks - Activities, Services, Broadcast Receivers & Content		





providers, UI Components - Views & notifications, Components for communication -Intents & Intent Filters, Android API levels (versions & version names)

**Application Structure (in detail):** AndroidManifest.xml, uses-permission & uses-sdk, Resources & R.java, Assets, Layouts & Drawable Resource, Activities and Activity Lifecycle, First sample Application

**Emulator-Android Virtual Device:** Launching emulator, Editing emulator settings o Emulator shortcuts, Log cat usage, Introduction to DDMS, Second App :- (switching between activities), Develop an app for demonstrating the communication between Intents

**Basic UI design:** Form widgets, Text Fields, Layouts, [dip, dp, sip, sp] versus px Examples

**Menu:** Option menu, Context menu, Sub menu, menu from xml, menu via code, Examples

**Intents (in detail):** Explicit Intents, Implicit intents, Examples

**UI Design:** Time and Date, Images and media Composite, Alert Dialogs & Toast, Popup, Examples

**Tabs and Tab Activity:** Examples

## UNIT-II

10  
Hours

**Styles & Themes:** styles.xml, draw able resources for shapes, gradients (selectors), Style attribute in layout file, Applying themes via code and manifest file, Examples

**Content Providers:** SQLite Programming, SQLiteOpenHelper, SQLiteDatabase, Cursor, Reading and updating Contacts, Reading bookmarks, Example

Develop an App to demonstrate database usage. CRUD operations must be implemented. Final details should be viewed in GridView as well as in ListView.

**Android Debug Bridge (adb) tool**

**Linkify:** Web URLs, Email address, text, map address, phone numbers, Match Filter & Transform Filter, Examples

**Adapters and Widgets:** Adapters:- ArrayAdapter BaseAdapters, ListView and List Activity, Custom list view, Grid View using adapters, Gallery using adapters, Examples

**Notifications:** Broadcast Receivers, Services and notifications, Toast, Examples

**Custom components:** Custom Tabs, Custom animated popup panels, Other components, Examples

**Threads:** Threads running on UI thread (runOnUiThread), Worker thread, Handlers & Runnable, AsyncTask (in detail), Examples

PRINCIPAL





**Advanced:** Live Folders, Using sdcards, XML Parsing, JSON Parsing, Maps, GPS, Location based Services

UNIT-III

10  
Hours

**Introduction to Android:** Basics of Android?, Importance and scope, Android Architecture, Android Stack, Android Applications Structure, Android Emulator, Android SDK

**Android Studio:** Overview of Android Studio, Android and File Structure, Android Virtual Device Manager, DDMS, LogCat

**Setup of Android Development environment:** Eclipse and SDK installation, AVD creation, Project Structure

UNIT-IV

**Hello Sheep:** Creating a Project, Working with the AndroidManifest.xml, Using the log system Activities

**UI Architecture:** Application context, Intents, Activity life cycle, Supporting multiple screen sizes

**User Interface Widgets:** Text controls, Button controls, Toggle buttons, Images

**Notification and Toast:** Parameters on Intents, Pending intents, Status bar notifications, Toast notifications

**Dialogs:** Alert dialog, Custom dialog, Dialog as Activity

UNIT-V

10  
Hours

**Lists:** Using string arrays, Creating lists, Custom lists

**Location and Maps:** Google maps, Using GPS to find current location

**Working with Data Storage:** Shared preferences, Preferences activity, Files access, SQLite database

**Animation:** View animation, Drawable animation

**Content Providers:** Content provider introduction, Query providers

**Network Communication:** Web Services, HTTP Client, XML and JSON Services: Service lifecycle, Foreground service.

**Publishing Your App:** Preparing for publishing, Signing and preparing the graphics, Publishing to the Android Market

Text Book: Android Application Development –Black Book

## **Evaluation Criteria:**

### **Key to Grades**

<b><u>Grades</u></b>	<b><u>Marks Range</u></b>
A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “Android” conducted in the year 2018-19**

A certificate course of 50 hours duration on “Matlab” was conducted by the Department of Computer Science. The students of III BCA were enrolled to the course and the strength of the course was 50. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College  
Kundapura  
Department of Computer Science  
Advanced Diploma on Android Application  
Development 2019-2020**

SL. NO.	NAME
1	Sushma M
2	Manjushree
3	Vandana Kini K
4	R Praveen Holla
5	Ashish N
6	Shivaraj C Shetty
7	Preeethi
8	Vaishnavi
9	Sahana
10	Lakshmeesh Mariya B C
11	Subrahmanya
12	Adarsh
13	Prashanth K Shetty
14	Anil Kumar K Y
15	Joyston Melroy Veigas

  
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**Bhandarkars' Arts and Science College Kundapura  
Department of Computer Science  
Android Certificate Course 2018-19**

Roll No	Name	Class
160853	Divya K	III BCA-A
160854	Harshitha	III BCA-A
160906	Vandana	III BCA-A

  
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**Bhandarkars' Arts and Science College Kundapura  
Department of Computer Science  
Android Certificate Course 2018-19**

Roll No	Name	Class
160853	Divya K	III BCA-A
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160906	Vandana	III BCA-A

  
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Kundapura, Udupi Dist., - 576 201



Android

## RECORDS OF

Class: III BCA

Section: 'A' 2 'B'

Class: 10		Month	11	11	11	11	11	11	11	11	11	11	11	11	11
Roll No.	Name	Date	21	28	29	30	31	1	2	3	4	5	6	7	8
		Sl. No.	6	12	13	14	15	16	17	18	19	20	21	22	23
895	Shashirekha ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
883	Prathiksha ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
819	✓ Shilpashree ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
888	✓ Pooja Kini ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
866	Aanchana ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
854	Hanshittha ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
853	Divya K. ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
857	Azpittha		6	12	14	17	18	19	20	21	22	23	24	25	26
910	Unnathi U.D ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
907	Varitha ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
106	Vandana ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
901	Supreettha		6	12	14	17	18	19	20	21	22	23	24	25	26
962	✓ Akalya		6	12	14	17	18	19	20	21	22	23	24	25	26
882	✓ Nandana ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
855	Nelsita ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
859	Sinchana P.		6	12	14	17	18	19	20	21	22	23	24	25	26
852	Aishwarya		6	12	14	17	18	19	20	21	22	23	24	25	26
5	Anil ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
13	Ranjith ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
0	Raghavendra ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
9	Gumuth. ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
3	Gowtham		6	9	11	12	13	14	15	16	17	18	19	20	21
7	Prakash		6	9	11	12	13	14	15	16	17	18	19	20	21
6	Niveditha ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
8	Chritan		6	9	11	12	13	14	15	16	17	18	19	20	21
	Soumyakiran		6	9	11	12	13	14	15	16	17	18	19	20	21
8	Shreyas		6	12	14	17	18	19	20	21	22	23	24	25	26
	Swathi ✓		6	12	14	17	18	19	20	21	22	23	24	25	26
Signature of the Teacher			✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

Signature of the Teacher \_\_\_\_\_

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962	963	964	965	966	967	968	969	970	971	972	973	974
975	976	977	978	979	980	981	982	983	984	985	986	987
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PRINCIPAL

Principal  
Shandarkars' Arts & Science College  
Wandapur, Udupi Dist., - 576 201



# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

(Reaccredited at "A" Grade with 3.32 CGPA)



## CERTIFICATE

The Academy of General Education, Manipal here by Certifies that

Mr./Ms.....has under gone

a Certificate Course in.....

during the year ..... and has secured .....grade.

Principal

Registrar

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science meeting was held on 03 -06-2019 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr. Ganesh K. 

Mrs. Vijaylaxmi N. Shetty 

Mr. Krishna 

Dr. M.B Nataraj 

**Resolution**

1. We have finalized the syllabus for C++, Data Structures ,Graphics and Design certificate courses.
2. Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
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Kundapura, Udupi Dist., - 576 201

  
**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura



Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

Sl.No	Certificate/Add on Course Name	Staff Team
1.	Add –on course on Computer hardware and Computer Applications (Certificate Level)	Mr.Ganesh K., Mr.Krishna, Mr.Rajendra Hoblidar,
2.	Add –on course on Computer hardware and Computer Applications (Diploma Level)	Mrs.Vijaylakshmi N.Shetty, Mr.Vinayanand Naik, Mr.Sandesh.
3.	MATLAB	Mr.Ganesh K, Mr.Sandesh A. Ms.Chaya Kharvi
4.	Android App Development	Mr.Giriraj, Mr.Mukunda Ms.Poornima
5.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
7.	Windows Basics & Office Automation	Ms.Akshatha Saklathi, Ms.Nagarathna, Mrs.Shreelatha
8.	Web Development	Ms.Swathi
9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.

12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



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**BHANDARKARS' ARTS AND SCIENCE  
COLLEGE, KUNDAPURA**

**DEPARTMENT OF COMPUTER SCIENCE**

**CERTIFICATE COURSE IN PYTHON PROGRAMMING**

**Objectives of the Course**

**Python** is a widely used high-level programming language for general-purpose programming, created by Guido van Rossum and first released in 1991. An interpreted language, Python has a design philosophy which emphasizes code readability (notably using whitespace indentation to delimit code blocks rather than curly brackets or keywords), and a syntax which allows programmers to express concepts in fewer lines of code than might be used in languages such as C++ or Java. Python features a dynamic type system and automatic memory management and supports multiple programming paradigms, including object-oriented, imperative, functional programming, and procedural styles. It has a large and comprehensive standard library.

The IEEE ranked Python as the #3 top programming language in 2016. RedMonk's January 2017 ranking had Python at #3, which was up one slot from their same ranking two years earlier. The TIOBE Index, a long-running language ranking, has Python steady at #8. The Popularity of Programming Language (PYPL), based on leading indicators from Google Trends search keyword analysis, shows Python at #3.

Since the language being so popular in web development and machine learning it becomes important to have knowledge in such language to best fit in the IT industry.

Duration: 50 Hours

  
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Kundapura, Udupi Dist., - 576 201





## SYLLABUS

### Unit – I

Python 3 – What is New?, Overview, Environment Setup, Basic Syntax

### Unit – II

Variable Types, Basic Operators, Decision Making, Loops

### Unit – III

Numbers, Strings, Lists, Tuples, Dictionary, Date & Time, Functions, Modules


### Unit – IV

Exceptions Handling, Object Oriented, Regular Expressions, CGI Programming, MySQL Database, Network Programming,

### Unit – V

Sending Email using SMTP, Multithreaded Programming, XML Processing, GUI Programming (Tkinter), Extension Programming with C.

Text Book: Learning Python by O'Reilly publications

  
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## **Evaluation Criteria:**

### **Key to Grades**

<b><u>Grades</u></b>	<b><u>Marks Range</u></b>
A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “Python” conducted in the year 2018-19**

A certificate course of 50 hours duration on “Python” was conducted by the Department of Computer Science. The students of II BCA and III BCA were enrolled to the course and the strength of the course was 50. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College  
Kundapura  
Department of Computer Science  
Certificate Course 2018-19  
Addon Diploma Level - Python Programming**

Roll No	Name	Class
170404	R. Praveen Holla	II BCA A
170410	Akshatha	II BCA A
170415	Deepa	II BCA A
170421	Kavya	II BCA A
170430	Pavithra	II BCA A
170432	Rajani	II BCA A
170438	Shreekala S Shetty	II BCA A
170439	Spoorthi	II BCA A
170443	Sushma M	II BCA A
170447	Apoorva	II BCA A
170448	Chaitra	II BCA A
170449	Deeksha H.K	II BCA A
170451	Navarathna	II BCA A
170452	Prathibha	II BCA A
170453	Sujana	II BCA A
170461	Divya K	II BCA A
170472	B. Nishantha Adiga	II BCA B
170477	Sannidhi Kharvi	II BCA B
170480	B. Sinchana Acharya	II BCA B
170486	Lakshmeesh	II BCA B
170491	Nagarathna	II BCA B
170499	Sahana	II BCA B
170501	Sangeetha	II BCA B
170512	Nagendra Adiga	II BCA B
170516	Sowmya	II BCA B
170517	Vaishnavi	II BCA B
170518	Vinay Kumar	II BCA B
170520	Chaithanya	II BCA B

  
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Kundapura, Udupi

**Bhandarkars' Arts and Science College Kundapura  
Department of Computer Science  
Advanced Diploma on Python Programming 2019-2020**

SL. NO.	NAME
1	Poojashri
2	Saraswathi
3	Poornima
4	Vasudha Hegde
5	Jayalacmi Saklathi
6	KUM Kavya
7	Annapoorna L.
8	Anusha Shetty
9	Prathvi
10	Nandini M. S
11	Shreedevi R
12	Pooja G. S
13	Gowri S. Adiga
14	Navya H
15	Chaitra
16	Prathibha
17	Rakshatha
18	Ranya R
19	B. S. Sahana
20	Geetha
21	Aishwarya Chandan
22	Sahana N. Poojary
23	Sampritha
24	Sooraj Shetty
25	Puneeth Kumar Shetty
26	Sanjana
27	Rashmitha Karaba H
28	Shriraksha
29	Jeevan Billava
30	Chethan Kumar Shetty
31	V Tejaswi Poojary
32	Ranjitha
33	Sharath S Naik
34	Chethan kumar
35	Sankeerna Shetty
36	Rakshitha R Shetty
37	Dhanusha

  
PRINCIPAL  
Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 201



**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Advanced Diploma on Python Programming 2019-2020**

SL. NO.	NAME
1	Sanjana
2	Rashmitha Karaba H
3	Shriraksha
4	Jeevan Billava
5	Chethankumar Shetty
6	V Tejaswi Poojary
7	Ranjitha
8	Sharath S Naik
9	Chethan Kumar
10	Sankeerna Shetty
11	Rakshitha R Shetty
12	Dhanusha

  
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 Kundapura, Udupi Dist., - 576 201

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Certificate Course on Python Programming 2019-2020**

SL. NO.	NAME
1	Poojashri
2	Saraswathi
3	Poornima
4	Vasudha Hegde
5	Jayalaxmi Saklathi
6	KUM. Kavya
7	Annapoorna L.
8	Anusha Shetty
9	Prathvi
10	Nandini M. S
11	Shreedevi R
12	Pooja G. S
13	Gowri S. Adiga
14	Navya H
15	Chaitra K. Bhar
16	Prathibha
17	Rakshatha
18	Ranya R
19	B. S. Sahana
20	Geetha
21	Aishwarya Chandan
22	Sahana N. Poojary
23	Sampritha
24	Sooraj Shetty
25	Puneeth Kumar Shetty

  
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8	Anusha Shetty
9	Prathvi
10	Nandini M. S
11	Shreedevi R
12	Pooja G. S
13	Gowri S. Adiga
14	Navya H
15	Chaitra
16	Prathibha
17	Rakshatha
18	Ranya R
19	B. S. Sahana
20	Geetha
21	Aishwarya Chandan
22	Sahana N. Poojary
23	Sampritha
24	Sooraj Shetty
25	Puneeth Kumar Shetty
26	Sanjana
27	Rashmitha Karaba H
28	Shriraksha
29	Jeevan Billava
30	Chethan Kumar Shetty
31	V Tejaswi Poojary
32	Ranjitha
33	Sharath S Naik
34	Chethan kumar
35	Sankeerna Shetty
36	Rakshitha R Shetty
37	Dhanusha

  
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 Bhandarkars' Arts & Science  
 Kundapura, Udupi Dist., - 576 201

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Diploma on Python Programming 2019-2020**

SL. NO.	NAME
1	Ambika Chatra
2	Amulya J K
3	Nithyashree
4	Akshatha
5	Susmitha
6	Apoorva
7	Swathi C H
8	Shama S Hebbar
9	Anusha
10	Deeksha B
11	Priyanka
12	Sakshi
13	Kavyashree Devadiga
14	Deekshitha
15	Deekshitha
16	Bhumika R
17	Anushree
18	Poornima K
19	Bhagyashree

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**PYTHON**  
**CERTIFICATE COURSE 2019-2020**  
**(VOCATION)**

SL. NO.	NAME
1	SANJANA NAYAK
2	K. S VIGNESH

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**PYTHON PROGRAMMING 2017-2018**

ROLL NO.	NAME	CLASS
160895	SILASHIREKHA	II BCA
160977	SHRINDHI SHETTY	II BCA
160965	ASHWINI M BHANDARI	II BCA
160896	SHRADDHA	II BCA
160883	NAYANA	II BCA
160887	PRATHIKSHA	II BCA
160868	CHANDAN KUMAR SHANBHAG	II BCA
160974	PRATHWIK	II BCA
160897	SHILPASHREE	II BCA
160958	NAGASHREE	II BCA
160960	RAJATH MANJAYYA SHETTY	II BCA
160959	H. K. PADMAHSHREE	II BCA
160983	SHRIYA BHAT BALEHITTLU	II BCA
160957	SHRIKAKSHA	II BCA
160968	SWATHI	II BCA
160969	AMRATHA C.	II BCA
160951	NEHA G. PANDITH	II BCA
160943	SHWETHA KUMARI	II BCA
160922	AJANTHA	II BCA
160978	SHIVARAJ POOJARY	II BCA
160952	SOUNDARYA	II BCA
160921	SUJAN	II BCA
160928	ADITHYA	II BCA
160956	ARPITHA SHETTY M.	II BCA
160936	NIVEDITHA	II BCA
160962	RAMYA	II BCA
160964	SWATHI	II BCA
160953	AKSHATHA SHETTY M.	II BCA

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**

**DEPARTMENT OF COMPUTER SCIENCE**

**PYTHON PROGRAMMING**

**CERTIFICATE COURSE 2020-2021**

**(VOCATION)**

SL.NO.	NAME
1	SHREYA
2	SNEHA
3	SANJANA.S.KINI
4	NIHARIKA.N.SHETTY
5	NIDHI NARASIMHA NAYAK
6	PRIYA SHETTY
7	SHAMANTHA
8	ANUSHA

  
**PRINCIPAL**  
Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 267





# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

(Reaccredited at "A" Grade with 3.32 CGPA)



## CERTIFICATE

The Academy of General Education, Manipal here by Certifies that

Mr./Ms.....has under gone

a Certificate Course in.....

during the year ..... and has secured .....grade.

Principal

Registrar

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science meeting was held on on 03 -08-2020 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr.Ganesh K. 

Mrs.Vijaylaxmi N.Shetty 

Mr.Krishna 

Dr.M.B Nataraj 

**Resolution**

- 1.We have finalized the syllabus for certificate course in online -mode.
- 2.Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura



Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

Sl.No	Certificate/Add on Course Name	Staff Team
2.	MATLAB	Mr.Ganesh K, Mr.Sandesh A. Ms.Chaya Kharvi
4.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
5.	Tally with ERP 9.0 with GST	Mr.Ramachandra Achari, Ms.Shruthi.S
6.	Windows Basics & Office Automation	Ms.Nagarathna, Ms.Poornima

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**BHANDARKARS' ARTS AND SCIENCE COLLEGE, KUNDAPURA**

**DEPARTMENT OF COMPUTER SCIENCE**

**CERTIFICATE COURSE IN ADVANCED EXCEL**

**Objective of the Course:**

This course aims to provide skills and knowledge which will allow the attendee to Learn MS Excel tools, Techniques and create lookup functions, set Excel working options, enhance charts, protect worksheet data, perform advanced data operations using summarising, PivotTables, data consolidations, goal seeking, and Solver, and create and use macros.

Microsoft excel is a familiar and most recommended tool for all industries from technical to management level. Microsoft Excel helps companies maximise the value of their data, helping to control costs more effectively and obtain business information.

**Duration : 60 Hours**

**Syllabus**

<b>UNIT I</b>	<b>15 Hours</b>
<b>EXCEL INTRODUCTION</b> An overview of the screen, navigation and basic spreadsheet concepts, Various selection techniques, Shortcut Keys <b>USING BASIC FUNCTIONS</b> Using Functions – Sum, Average, Max, Min, Count, Counta, Absolute, Mixed and Relative Referencing <b>FORMATTING AND PROOFING</b>	

Formatting Cells with Number formats, Font formats, Alignment, Borders, etc.  
Basic conditional formatting

### **MATHEMATICAL FUNCTIONS**

Sumif, Sumifs Countif, Countifs Averagelf, Averagelfs

### **PROTECTING EXCEL**

File Level Protection, Workbook, Worksheet Protection

## **UNIT II**

**15 Hours**

### **TEXT FUNCTIONS**

Upper, Lower, Proper, Left, Mid, Right, Trim, Len, Exact, Concatenate, Find, Substitute

### **DATE AND TIME FUNCTIONS**

Today, Now, Day, Month, Year, Date, Date if, DateAdd, EOMonth, Weekday

### **ADVANCED PASTE SPECIAL TECHNIQUES**

Paste Formulas, Paste Formats, Paste Validations, Transpose Tables

### **Sorting and FILTERING**

Filtering on Text, Numbers & Colors, Sorting Options, Advanced Filters on 15-20 different criteria(s)

### **WHAT IF ANALYSIS**

Goal Seek, Scenario Analysis, Data Tables (PMT Function), Solver Tool

### **LOGICAL FUNCTIONS**

If Function, How to Fix Errors – iferror, Nested If, Complex if and or functions

## **UNIT III**

**15 Hour**

### **DATA VALIDATION**

Number, Date & Time Validation, Text and List Validation, Custom validations based on formula for a cell, Dynamic Dropdown List Creation using Data Validation – Dependency List

### **LOOKUP FUNCTIONS**

Vlookup / Hlookup, Index and Match, Creating Smooth User Interface Using Lookup, Nested VLookup, Reverse Lookup using Choose Function, Worksheet linking using Indirect, Vlookup with Helper Column

### **PIVOT TABLES**

Creating Simple Pivot Tables, Basic and Advanced Value Field Setting, Classic Pivot table, Grouping based on numbers and Dates, Calculated Field & Calculated Items

### **Arrays Functions**

What are the Array Formulas, Use of the Array Formulas?, Basic Examples of Arrays (Using ctrl+shift+enter), Array with if, len and mid functions formulas., Array with Lookup functions., Advanced Use of formulas with Array.



**CHARTS and slicers**

Various Charts i.e. Bar Charts / Pie Charts / Line Charts, Using SLICERS, Filter data with Slicers, Manage Primary and Secondary Axis

**UNIT IV****15 Hours****VBA Macro****Introduction to VBA**

What Is VBA?, What Can You Do with VBA?, Recording a Macro, Procedure and functions in VBA

**Variables in VBA**

What is Variables?, Using Non-Declared Variables, Variable Data Types, Using Const variables

**Message Box and INPUTBOX FUNCTIONS**

Customizing Msgboxes and Inputbox, Reading Cell Values into Messages, Various Button Groups in VBA

**If and select statements**

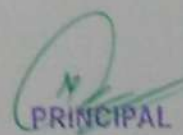
Simple If Statements, The Elseif Statements, Defining select case statements

**Looping in VBA**

Introduction to Loops and its Types, The Basic Do and For Loop, Exiting from a Loop, Advanced Loop Examples

**Worksheet / Workbook Operations**

Merge Worksheets using Macro, Merge multiple excel files into one sheet, Split worksheets using VBA filters, Worksheet copiers

  
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## Evaluation Criteria:

### Key to Grades

<u>Grades</u>	<u>Marks Range</u>
A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## Report on Certificate course in “Advanced Excel” conducted in the year 2021-22

A certificate course of 60 hours duration on “**Advanced Excel**” was conducted by the Department of Computer Science. The students of I BCA were enrolled to the course and the strength of the course was 50. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.



**BHANDARKARS' ARTS &**

Class: III BCA Section: 'A' & 'B'

Section: 'A' & 'B'

### ATTENDANCE AND MARKS

1	1	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36																																					
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

[illegible]Department of Computer Science  
1A & 8 Science College

Department of  
Bhandarkar's Arts & Science College  
Kundapura

**Kundapura**



# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

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Mr./Ms.....has under gone

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Principal

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**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**


**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science  
meeting was held on on 03 -08-2020 at 2.00 PM .**

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**BOS Members:**

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Mr.Krishna 

Dr.M.B Nataraj 

**Resolution**

- 1.We have finalized the syllabus for certificate course in online -mode.
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**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
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Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

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6.	Windows Basics & Office Automation	Ms.Nagarathna, Ms.Poornima

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# BHANDRKARS' ARTS & SCIENCE COLLEGE, KUNDAPURA

Dept. of Computer Science

Certificate Course in DTP-Syllabus -2017-2018

## Objectives of the Course

Understand basics of computer and its related terminology. Write, Edit & Print documents using MS-WORD & EXCEL. Understand various software used for Desktop Publishing and would be able to create and design documents with text and graphics like newspaper ad, wedding cards, visiting cards, greeting cards etc.


**Duration: 70 Hours**

**Unit 1: Photoshop:** Photoshop Introduction, Basics for Working with Image Files, Selecting an Area, Working with Text, Working with Colors, Work with Layers, Image Manipulation, Menus, Working with camera raw, Working with web graphics, Using Actions to Automate Tasks in Photoshop, A Basic Guide to Photoshop's 3D Tools.

**Unit 2: InDesign:** The Indesign Workspace, Building pages, Working with color, The Arrange Commands, Working with tabs and tables, Character Formatting, Paragraph Setting, Working with Style, Working with Graphics, Working with Master page, Printing and Exporting, Interactive

**Unit 3: CorelDRAW:** Introduction to Programs, Suite Interface, Page Setup, Viewing - DRAW / PAINT, Selecting and Moving - DRAW, Masks - PHOTO-PAINT, Transforming - DRAW, Drawing - DRAW, Shape Tools - PAINT, Editing Tools - DRAW, Fills - DRAW / PAINT, Outlines - DRAW, Objects - PAINT, Arranging Objects - DRAW, Text - DRAW.

**Unit 4: PHOTO-PAINT:** Interactive Tools, Miscellaneous - DRAW, Editing and Retouching - PAINT, Color Adjustment - PAINT, Filters - PAINT, Brushes Tools - PAINT, Input/Output - DRAW / PAINT, Other Programs.

  
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## Evaluation Criteria:

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B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

### **Report on Certificate course in “DTP” conducted in the year 2021-22**

A certificate course of 60 hours duration on “**DTP**” was conducted by the Department of Computer Science. The students of II BCA were enrolled to the course and the strength of the course was 50. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.



DTP - 201-22

RECORDS OF  
BHANDARKAR'S ARTS &

Roll No.	Name	Month	Date	SL No.	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	26	27	28	29	30	31	
		925	869	Chaya	✓	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
433	815	Gayathri	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
417	892	Ramya	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
849	848	Sakana	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
904	904	Rushmita	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
905	905	Sachintha	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
922	922	Swarnika	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
923	923	Prateek	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
927	927	Shruti	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
933	933	Eastlife	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
940	940	Rohan	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
943	943	Shruti	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
946	946	Sugana	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
947	947	Sudeep	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
951	951	Noka	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
952	952	Sundarya	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
954	954	Anjali	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
955	955	Aditya	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
957	957	Shruti	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
958	958	Magashree	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
959	959	H.K. Radmashree	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
960	960	Rajath Manjaya Shetty	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
965	965	Ashwini	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
968	968	Swetha	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
969	969	dhruva	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
972	972	Shweta	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
974	974	Prateek S Bagan	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
983	983	Shruti	✓	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Signature of the Teacher																																				

SCIENCE COLLEGE, KUNDAPURA  
ATTENDANCE AND MARKS

[illegible][illegible]

**HOD**  
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Principal

Registrar

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science meeting was held on 03 -06-2019 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr. Ganesh K. 

Mrs. Vijaylaxmi N. Shetty 

Mr. Krishna 

Dr. M.B Nataraj 

**Resolution**

1. We have finalized the syllabus for C++, Data Structures ,Graphics and Design certificate courses.
2. Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
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**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura

Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

Sl.No	Certificate/Add on Course Name	Staff Team
1.	Add –on course on Computer hardware and Computer Applications (Certificate Level)	Mr.Ganesh K., Mr.Krishna, Mr.Rajendra Hoblidar,
2.	Add –on course on Computer hardware and Computer Applications (Diploma Level)	Mrs.Vijaylakshmi N.Shetty, Mr.Vinayanand Naik, Mr.Sandesh.
3.	MATLAB	Mr.Ganesh K, Mr.Sandesh A. Ms.Chaya Kharvi
4.	Android App Development	Mr.Giriraj, Mr.Mukunda Ms.Poornima
5.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
7.	Windows Basics & Office Automation	Ms.Akshatha Saklathi, Ms.Nagarathna, Mrs.Shreelatha
8.	Web Development	Ms.Swathi
9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.



12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



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**Bhandarkars' Arts and Science College Kundapur**

**Department of Computer Science**

**Syllabus for Certificate course – Tally-ERP 9.0**

**Objective of the course:** To provide basic knowledge in computerized accounting systems though Tally 9.0 for the people with basic knowledge of manual accounting.

**Method of teaching:** Lectures, Presentations, Practical classes.

**Duration of the course:** 60 Hours

**Course contents:**

**UNIT - I**

**Manual Accounting:** Need for accounting, types of accounts, rules for debit and credit, accounting principles and standards, accounting systems, definitions and terms, recording transaction in a journal, ledger, trial balance, final accounts, adjustment entries. 3 Hours

**Installing Tally:** Feature of Tally, requirements for installing Tally 9.0, procedure for installing Tally 9.0. 2 Hours

**UNIT – II**

**Introduction to Tally:** Opening screen of tally, creating company – loading/selecting the company, shutting a company, altering and modifying a company, buttons on the button panel, configuring company. 3 Hours

**Accounting Information:** Menu related to accounts, groups, managing groups (single group, expert usage), Ledgers (single ledger, expert usage), cost categories (single mode, expert usage) and cost centers. 13 Hours

**UNIT – III**

**Vouchers:** Vouchers in Tally, configuring vouchers, creating/customizing vouchers, displaying vouchers, altering vouchers, pre-defined vouchers with examples, vouchers for illustrated transactions. 7 Hours

  
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**Inventory Information:** Stock groups, stock categories, stock godowns, voucher types, units of measure.

6 Hours

**Pure inventory vouchers:** Types of inventory vouchers  
1 Hour

#### UNIT – IV

**Purchase/sales orders and invoices:** Purchase orders, sales orders – creating a sales order, altering a sales order, deleting a sales order, viewing order position, invoices – invoice entry, invoice configuration, printing invoices/vouchers, cheque printing.

5 Hours

**Reports:** Trial balance, balance sheet, profit and loss account, stock summary, ratio analysis, display menu, day book.

5 Hours

#### UNIT – V

**Important features of Tally:** Multiple currencies and foreign exchanges, rates of exchange, budget, scenario management, security control in tally, splitting company data, group companies, tally audit, tally interface, tally ODBC, backup and restore.

5 Hours

**TDS Module:** Enabling TDS in tally, ledger pertaining to TDS, creating TDS voucher types, voucher entry, TDS reports, challan, TDS computation, TDS payables, ledger out standings

5Hours

**VAT Module:** Justification of VAT, VAT terminologies, rate of VAT, Trader identification number, Computing VAT, input tax credit, supply chain management, enabling VAT in tally, ledger pertaining to VAT, ledger creation, stock item creation when VAT is enabled, voucher entry when VAT is enabled, VAT reports.

5

Hours

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## **Evaluation Criteria:**

### **Key to Grades**

<b><u>Grades</u></b>	<b><u>Marks Range</u></b>
A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “Tally” conducted in the year 2018-19**

A certificate course of 50 hours duration on “Python” was conducted by the Department of Computer Science. The students of II BCom and III BCom were enrolled to the course and the strength of the course was 35. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Certificate Course 2018-19**  
**Tally**

Roll No	Name	Class
180114	Shreya	1 BCom C2
180176	Vidyashree .H	1 BCom C2
180220	Anusha	1 BCom C3
180015	Sushrutha	1 BCom C1
180001	Akshatha	1 BCom C1
180005	Kavyashree	1 BCom C1
180038	S. Sanchitha Kumari	1 BCom C1

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**

**DEPARTMENT OF COMPUTER SCIENCE**

**TALLY**

**CERTIFICATE COURSE 2019-2020**

**(VOCATION)**

SL.NO.	NAME
1	SHREEVANI
2	POOJA
3	NETHRA
4	RASHMITHA
5	SALVADI SHABARI
6	SUKANYA BHAT
7	PADMASHREE
8	RAJESHWARI
9	BENISHA OLIVERA
10	CAROL JENIFA D'ALMEIDA
11	SUJATHA K
12	NAVYA B.SHETTY
13	K.SHRI RAKSHA KALKUR
14	PRABHODA J
15	FIZA
16	RACHANA

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**

**DEPARTMENT OF COMPUTER SCIENCE**

**TALLY ERP9 WITH GST**

**CERTIFICATE COURSE 2020-2021**

**(VOCATION)**

SL.NO.	NAME
1	ASHWATH
2	AJITH
3	G AKSHATHA
4	SUJNA
5	VEDHA

  
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**BHANDARKARS' ARTS & SCIENCE COLLEGE KUNDAPUR**

**DEPARTMENT OF COMPUTER SCIENCE**

**TALLY ERP9 WITH GST**

**CERTIFICATE COURSE 2021-2022**

**(VOCATION)**

SL.NO.	NAME
1	SAHANA
2	SHWETHA
3	PRATHEEKA
4	SHREYA SHANUBHAG
5	SHRADHA
6	AKSHATHA S MENDON
7	DISHA

  
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Class: III BCA

Section: A &amp; B

RECORDS OF

Roll No.	Name	Month											
		Date											
		Sl.No.	1	2	3	4	5	6	7	8	9	10	11
471	Bosman	1	8	12	16	20	24	28	30	31			
473	Joyson	1	8	12	16	20	24	28	30	31			
527	Shreevatsan	1	8	12	16	20	24	28	30	31			
506	Shreevatsan	1	8	12	16	20	24	28	30	31			
511	Ashwini	1	8	12	16	20	24	28	30	31			
507	Sushma	1	8	12	16	20	24	28	30	31			
522	Ganesh	1	8	12	16	20	24	28	30	31			
489	Manjunatha Aranya	1	8	12	16	20	24	28	30	31			
531	Vignesh	1	8	12	16	20	24	28	30	31			
449	Deeksha	1	8	12	16	20	24	28	30	31			
452	Prathiba	1	8	12	16	20	24	28	30	31			
430	Prathiba	1	8	12	16	20	24	28	30	31			
458	Anitha	1	8	12	16	20	24	28	30	31			
435	Shravan	1	8	12	16	20	24	28	30	31			
516	Bhuvan	1	8	12	16	20	24	28	30	31			
480	Bhuvan	1	8	12	16	20	24	28	30	31			
500	Bhuvan	1	8	12	16	20	24	28	30	31			
529	Deeksha	1	8	12	16	20	24	28	30	31			
497	Nagavani	1	8	12	16	20	24	28	30	31			
534	Deeksha	1	8	12	16	20	24	28	30	31			
531	Deeksha	1	8	12	16	20	24	28	30	31			
519	Aruna	1	8	12	16	20	24	28	30	31			
485	Kavitha	1	8	12	16	20	24	28	30	31			
461	Durga	1	8	12	16	20	24	28	30	31			
451	Manjunatha	1	8	12	16	20	24	28	30	31			
460	Surekha Fernandes	1	8	12	16	20	24	28	30	31			
445	Vignesh	1	8	12	16	20	24	28	30	31			

Class: III BCA

Section: A &amp; B

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Roll No.	Name	Month											
		Date											
		Sl.No.	1	2	3	4	5	6	7	8	9	10	11
431	Bosman	1	8	12	16	20	24	28	30	31			
431	Hanu	1	8	12	16	20	24	28	30	31			
432	Manjunatha	1	8	12	16	20	24	28	30	31			
448	Chaitan	1	8	12	16	20	24	28	30	31			
450	Kavitha Upadhyay	1	8	12	16	20	24	28	30	31			
433	Shravan	1	8	12	16	20	24	28	30	31			
504	Deeksha	1	8	12	16	20	24	28	30	31			

Roll No.	Name	Month											
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432	Manjunatha	1	8	12	16	20	24	28	30	31			
448	Chaitan	1	8	12	16	20	24	28	30	31			
450	Kavitha Upadhyay	1	8	12	16	20	24	28	30	31			
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Principal  
 Headmaster, St. Xavier's School,  
 Bangalore, U.S.A. - 560 001



# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

(Reaccredited at "A" Grade with 3.32 CGPA)



## CERTIFICATE

The Academy of General Education, Manipal here by Certifies that

Mr./Ms.....has under gone

a Certificate Course in.....

during the year ..... and has secured .....grade.

Principal

Registrar

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## **BHANDRKARS' ARTS & SCIENCE COLLEGE, KUNDAPURA**

### **Dept. of Computer Science**

#### **Add-On course: COMPUTER HARDWARE & COMPUTER APPLICATIONS**

**Objective:** To make students more skill full, more professional and more industry ready by providing knowledge of most recent and most popular languages and technologies in the industrial circle, which are not included in their regular curriculum. Thus making them unique in the future competition they face. And to provide bigger wightage to their profile and make them ready to face any challenge in the modern day IT industry.

#### **Course Design:**

**I year – Certificate Level** – PC Assembling, Software installation, Basic network and digital logic practical and DTP. Where DTP includes Adobe Photoshop, CorelDraw and Adobe InDesign.

**II Year – Diploma Level** – MATLAB or Python

**III Year – Advanced Diploma Level** – Android Application development or Ruby, Ruby on Rails.

#### **Detailed Syllabus:**

##### **I Year:**

PC Assembling: identifying the basic hardware components of a digital computer, assembling and trouble shooting.

Software installation: installing OS and other important softwares.

##### **Basic Network practical:**

1. Identify the different components used in computer network.
2. Installing and configuring NIC
3. Crimp and test straight cable.
4. Crimp and test cross cable
  - (a) Work group creation
  - (b) Sharing of drives, folders and files.
5. User Account creation and rights assignments
6. Configure the computer with IP Address, identify MAC address and ARP table

##### **Digital Logic Practical:**

1. Realise the Demorgan's theorems.

  
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2. Construct a half adder using XOR and AND gates & verify its truth table.
3. Construct a full adder & verify its truth table.
4. Realise 2-bit decoder.
5. Realize the action of commercial JK Flip Flop.
6. Construct a synchronous mod 4 counter and study its counting performance using JK Flip Flop and AND gates.



## DTP:

**Phototshop:** Photoshop Introduction, Basics for Working with Image Files, Selecting an Area, Working with Text, Working with Colors, Work with Layers, Image Manipulation, Menus, Working with camera raw, Working with web graphics, Using Actions to Automate Tasks in Photoshop, A Basic Guide to Photoshop's 3D Tools.

**InDesign:** The Indesign Workspace, Building pages, Working with color, The Arrange Commands, Working with tabs and tables, Character Formatting, Paragraph Setting, Working with Style, Working with Graphics, Working with Master page, Printing and Exporting, Interactive

**CorelDRAW:** Introduction to Programs, Suite Interface, Page Setup, Viewing - DRAW / PAINT, Selecting and Moving - DRAW, Masks - PHOTO-PAINT, Transforming - DRAW, Drawing - DRAW, Shape Tools - PAINT, Editing Tools - DRAW, Fills - DRAW / PAINT, Outlines - DRAW, Objects - PAINT, Arranging Objects - DRAW, Text - DRAW, Text - PHOTO-PAINT, Interactive Tools, Miscellaneous - DRAW, Editing and Retouching - PAINT, Color Adjustment - PAINT, Filters - PAINT, Brushes Tools - PAINT, Input/Output - DRAW / PAINT, Other Programs.

## II Year

### Elective 1: MATLAB

**Running Matlab:** Starting, It's a calculator, Making script files, Running script files, Pause command, Online help, Making matlab be quiet, Debugging, Arranging the desktop, Sample script, Breakpoints and stepping.

**Variables:** Numerical accuracy,  $\pi$ , Assigning values to variables, Matrices, Strings.

**Input, Calculating And Output:** Input, Calculating, Add and subtract, Multiplication, Complex arithmetic, Mathematical functions, Housekeeping functions, Output. **Arrays and X-Y Plotting:** Colon(:) command, XY plots, Labels and titles, Generating multiple plots, Overlaying plots, XYZ plots: Curves in 3-D space, Logarithmic plots, Controlling the axes, Greek letters, Subscripts and superscripts, Changing line widths, fonts, etc.

**Surface, Contour, and Vector Field Plots:** Meshgrid and Ndgrid, Contour plots and surface plots, Evaluating Fourier series, Vector field plots. **Vector Products, Dot and Cross.**

**Linear Algebra:** Solve a linear system, Max and min, Matrix inverse, Transpose and Hermitian conjugate, Special matrices, Determinant, Norm of vector(Magnitude), Sum the elements, Selecting rows and columns, Eigenvalues and Eigenvectors, Fancy stuff. **Polynomials:** Roots of a polynomial, Find the polynomial from the roots, Multiply polynomials, Divide polynomials, first derivative, Evaluate a polynomial, fitting data to a polynomial. **Loops and Logic:** Loops, Logic, secant method, Using Matlab's Fzero.





**Derivatives and integrals:** Derivatives, Definite integrals, Matlab integrators.  
**Introduction to image processing:** Images and pictures, What is image processing? ,Images and digital images ,Some applications ,Aspects of image processing ,An image processing task ,Types of digital images ,Image File Sizes ,Image Acquisition. **Images and Matlab:** Grayscale images, RGB Images ,Indexed colour images ,Data types and conversions. **Image Display:** Introduction The imshow function Bit planes Spatial Resolution. **Colour processing :**What is colour Colour models Colour images in Matlab Pseudocolouring ,Processing of colour images .

## Elective 2: Python

Python 3 – What is New?, Overview, Environment Setup, Basic Syntax, Variable Types, Basic Operators, Decision Making, Loops, Numbers, Strings, Lists, Tuples, Dictionary, Date & Time, Functions, Modules, Exceptions Handling, Object Oriented, Regular Expressions, CGI Programming, MySQL Database, Network Programming, Sending Email using SMTP, Multithreaded Programming, XML Processing, GUI Programming (Tkinter), Extension Programming with C.

## III Year

### Elective 1: Android Application Development

**JAVA Concepts:** OOPs Concepts, Inheritance in detail, Exception handling, Packages & interfaces, JVM & .jar file extension, Multi threading (Thread class & Runnable Interface)

**Introduction to Android:** What is Android?, Setting up development environment, Dalvik Virtual Machine & .apk file extension, Fundamentals, Basic Building blocks - Activities, Services, Broadcast Receivers & Content providers, UI Components - Views & notifications, Components for communication -Intents & Intent Filters, Android API levels (versions & version names). **Application Structure (in detail):** AndroidManifest.xml, uses-permission & uses-sdk, Resources & R.java, Assets, Layouts & Drawable Resource, Activities and Activity Lifecycle, First sample Application. **Emulator-Android Virtual Device:** Launching emulator, Editing emulator settings o Emulator shortcuts, Log cat usage, Introduction to DDMS, Second App :- (switching between activities), Develop an app for demonstrating the communication between Intents. **Basic UI design:** Form widgets, Text Fields, Layouts, [dip, dp, sp, px] versus px Examples. **Menu:** Option menu, Context menu, Sub menu, menu from xml, menu via code, Examples. **Intents (in detail):** Explicit Intents, Implicit intents, Examples. **UI Design:** Time and Date, Images and media Composite, Alert Dialogs & Toast, Popup, Examples. **Tabs and Tab Activity:** Examples. **Styles & Themes:** styles.xml, drawable resources for shapes, gradients (selectors), Style attribute in layout file, Applying themes via code and manifest file, Examples. **Content Providers:** SQLite Programming, SQLiteOpenHelper, SQLiteDatabase, Cursor, Reading and updating Contacts, Reading bookmarks, Example : Develop an App to demonstrate database usage. CRUD operations must be implemented.





Final details should be viewed in GridView as well as in ListView. **Android Debug Bridge (adb) tool.** **Linkify:** Web URLs, Email address, text, map address, phone numbers, Match Filter & Transform Filter, Examples. **Adapters and Widgets:** Adapters:- ArrayAdapter BaseAdapters, List View and List Activity, Custom list view, Grid View using adapters, Gallery using adapters, Examples. **Notifications:** Broadcast Receivers, Services and notifications, Toast, Examples. **Custom components:** Custom Tabs, Custom animated popup panels, Other components, Examples. **Threads:** Threads running on UI thread (runOnUiThread), Worker thread, Handlers & Runnable, AsyncTask (in detail), Examples. **Advanced:** Live Folders, Using sdcards, XML Parsing, JSON Parsing, Maps, GPS, Location based Services. **Introduction to Android:** Basics of Android?, Importance and scope, Android Architecture, Android Stack, Android Applications Structure, Android Emulator, Android SDK. **Android Studio:** Overview of Android Studio, Android and File Structure, Android Virtual Device Manager, DDMS, LogCat. **Setup of Android Development environment:** Eclipse and SDK installation, AVD creation, Project Structure. **Hello Sheep:** Creating a Project, Working with the AndroidManifest.xml, Using the log system Activities. **UI Architecture:** Application context, Intents, Activity life cycle, Supporting multiple screen sizes. **User Interface Widgets:** Text controls, Button controls, Toggle buttons, Images. **Notification and Toast:** Parameters on Intents, Pending intents, Status bar notifications, Toast notifications. **Dialogs:** Alert dialog, Custom dialog, Dialog as Activity. **Lists:** Using string arrays, Creating lists, Custom lists. **Location and Maps:** Google maps, Using GPS to find current location. **Working with Data Storage:** Shared preferences, Preferences activity, Files access, SQLite database. **Animation:** View animation, Drawable animation. **Content Providers:** Content provider introduction, Query providers. **Network Communication:** Web Services, HTTP Client, XML and JSON. **Services:** Service lifecycle, Foreground service. **Publishing Your App:** Preparing for publishing, Signing and preparing the graphics, Publishing to the Android Market

## Elective 2: Ruby & Ruby on Rails

### **Ruby:**

Overview, Environment Setup, Syntax, Classes And Objects, Variables, Constants And Literals, Operators, Comments, If...Else, Case, Unless, Loops, Methods, Blocks, Modules And Mixins, Strings, Arrays, Hashes, Date And Time, Ranges, Iterators, Exceptions, Ruby Object Oriented, Regular Expressions, Db, Web Applications, Sending Email, Socket Programming, Xml, Xslt, Xpath, Web Services, Tk Guide, Ldap, Multithreading, Built-In Functions, Predefined Variables, Predefined Constants, Associated Tools

### **Ruby on Rails:**

Introduction, Concepts, Product Planning, Project Management, Accounts, Getting Started, Creating Application, The Parking Structure, Time Travel with Git, Gems, Configure, Static Pages and Routing, Request and Response, Dynamic Home Page, Troubleshooting, Layout and Views, Front-End Framework, Adding Pages, Contact Form, Spreadsheet Connection, Sending Mail, Mailing List, Deploying, Analytics.

  
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## **Evaluation Criteria:**

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B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

### **Report on Certificate course in “Add On Course-Certificate Level” conducted in the year 2018-19**

A certificate course of 50 hours duration on “Python” was conducted by the Department of Computer Science. The students of I BCA and I BSc were enrolled to the course and the strength of the course was 39. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.



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**Department of Computer Science**  
**Add on Certificate Course Computer Hardware &**  
**Application 2018-19**

Roll No	Name	Class
180407	Ranjitha	I BCA-A
180424	Sujay Poojari	I BCA-A
180425	Sushma	I BCA-A
180427	Vignesh Shetty	I BCA-A
180428	Vishmitha	I BCA-A
180430	Arpitha	I BCA-A
180432	Nikshitha G. S	I BCA-A
180433	Pooja	I BCA-A
180439	Madhurya Shetty	I BCA-A
180440	Prajeeth P	I BCA-A
180441	Sahas B S	I BCA-A
180446	Apoorva	I BCA-A
180450	Vinaya Kumara	I BCA-A
180451	Latha	I BCA-A
180457	Sinduri H. S	I BCA-A
180458	Ambika Chatra	I BCA-A
180459	Amulya J. K	I BCA-A
180460	Nagendra Herle	I BCA-A
180464	Hrishikesh	I BCA-A
180472	Shreyas Shetty	I BCA-B
180474	Akshay	I BCA-B
180478	Gangadhara	I BCA-B
180486	Shamantha	I BCA-B
180488	Subrahmanya Bhat	I BCA-B
180495	Anusha K. S	I BCA-B
180500	Nithyashree	I BCA-B
180504	Sangeetha Jogi	I BCA-B
180511	Sushmitha	I BCA-B
180512	Deepa	I BCA-B
180513	A Yathish	I BCA-B
180515	Rajath Shetty	I BCA-B
180516	Sameeksha M	I BCA-B
180518	Vijaya	I BCA-B
180519	Prakhyath S Vargese	I BCA-B
180521	Shivakumar	I BCA-B
180522	Mohammad Kalendar Sirajuddin	I BCA-B
180524	Manjunath Kalkur	I BCA-B

180526	Madhurya Billava	I BCA-B
180531	Shubha Shetty	I BCA-B

  
**PRINCIPAL**  
 Bhandarkars' Arts & Science College  
 Kundapura, Udupi Dist., - 576 201

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Add on Course on Computer Hardware and Application**  
**2019-2020**

SL. NO.	NAME
1	Swathi
2	Anusha A
3	Rakshith Kumar Shetty
4	Nitish N. Poojary
5	Samartha
6	Skanda Udupa
7	Ranjankumar Bhandari
8	Karthik Maiya
9	Bhavyashree
10	Nisarga
11	Rakshitha
12	Shivani Adiga
13	Vinaya Herle G
14	Vivek
15	Deeksha
16	Sindhura
17	Sinchana
18	Surabhi I
19	Vidhyabhushana Madhyastha
20	Sarvesh Narahari Bhat
21	Sathwik
22	Pavan A. Jogi
23	Yogaraja
24	Abhishek
25	Rakshitha
26	K. S. Sugam Devadiga
27	Shwetha
28	Deeksha Shanabag
29	Vikram Holla V
30	Amritha
31	Akilesh
32	Vishwas
33	Spoorthi
34	Srujan D. S

  
**PRINCIPAL**  
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35	Shrisha Prabhu
36	Akshatha
37	Chaithra
38	Srishti L. Kharvi
39	Mohammad Afnan
40	Subrahmanya S. Hegde
41	Prajwal V. Naik
42	Anvith N. V
43	Nagamika
44	Shreelakshmi
45	Nikhitha
46	Kirana B. S
47	Chinmaya Krishna Sharma
48	Pavan Chandan
49	Swathi T N
50	Shreeraksha Shetty
51	Dharshith Kumar Shetty
52	Prathamesh S Bangera
53	Ambika
54	K A Preethesh
55	Rajath
56	Rithesha
57	Dashami
58	Sinchana D
59	Preethi
60	Karthik
61	Bhoomika
62	P Sneha
63	Karthik

  
**PRINCIPAL**  
 Bhandarkars' Arts & Science College  
 Kundapura, Udupi Dist., - 576 20

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Add on Course on Computer Hardware and Application**  
**2019-2020**

SL. NO.	NAME
1	Swathi
2	Anusha A
3	Rakshith Kumar Shetty
4	Nitish N. Poojary
5	Samartha
6	Skanda Udupa
7	Ranjankumar Bhandari
8	Karthik Maiya
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12	Shivani Adiga
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14	Vivek
15	Deeksha
16	Sindhura
17	Sinchana
18	Surabhi I
19	Vidhyabhushana Madhyastha
20	Sarvesh Narahari Bhat
21	Sathwik
22	Pavan A. Jogi
23	Yogaraja
24	Abhishek
25	Rakshitha
26	K. S. Sugam Devadiga
27	Shwetha
28	Deeksha Shanabhaq
29	Vikram Holla V
30	Amritha
31	Akilesh
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39	Mohammad Afnan
40	Subrahmanya S. Hegde
41	Prajwal V. Naik
42	Anvith N. V
43	Nagambika
44	Shreelakshmi
45	Nikhitha
46	Kirana B. S
47	Chinmaya Krishna Sharma
48	Pavan Chandan
49	Swathi T N
50	Shreeraksha Shetty
51	Dharshith Kumar Shetty
52	Prathamesh S Bangera
53	Ambika
54	K A Preethesh
55	Rajath
56	Rithesha
57	Dashami
58	Sinchana D
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61	Bhoomika
62	P Sneha
63	Karthik

  
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 Kundapura, Udupi Dist., - 576 201



# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

(Reaccredited at "A" Grade with 3.32 CGPA)



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Mr./Ms.....has under gone

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during the year ..... and has secured .....grade.

Principal

Registrar

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science meeting was held on 03 -06-2019 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr. Ganesh K. 

Mrs. Vijaylaxmi N. Shetty 

Mr. Krishna 

Dr. M.B Nataraj 

**Resolution**

1. We have finalized the syllabus for C++, Data Structures ,Graphics and Design certificate courses.
2. Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
**PRINCIPAL**  
Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 201

  
**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura

Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

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11.	React JS	Mr.Amar Michale Sequeira.



12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



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## CERTIFICATE COURSE IN ANGULAR JS

### AngularJS Course Objectives

Students will:

- Understand the design of single-page applications and how AngularJS facilitates their development
- Properly separate the model, view, and controller layers of your application and implement them using AngularJS
- Master AngularJS expressions, filters, and scopes
- Build Angular forms
- Elegantly implement Ajax in your AngularJS applications
- Write AngularJS directives
- Unit test and end-to-end test your AngularJS applications

### Unit 1: Introduction to CSS

CSS Introduction, Syntax, Selectors, Styling, Pseudo class, Pseudo Elements, CSS Tables, CSS Box Models, CSS Opacity, CSS Navigation Bar, Dropdowns

### Unit 2: Introduction to JavaScript

JavaScript Statements, Keywords, Functions, JavaScript Programs, Operators, Functions, Function Parameters, Function Return Types, Data Types, Primitive Types

### Unit 3: Working with Objects

Object Oriented Programming, Object Creation, Adding Methods of Objects, JavaScript Loops & Iteration, Adding Properties of Objects, JavaScript Conditional Statements, Enumerating Properties, Callbacks, JSON.

### Unit 4: Angular JS Basics

What is Angular JS?, Why Angular JS?, Why MVC matters, MVC-The Angular JS way, Features of Angular JS ,Model-View-Controller, My First Angular JS app

### Unit 5: Angular Expressions

All about Angular Expressions, How to use expressions, Angular vs JavaScript

### Unit 6: Filters

Built-In Filters, Using Angular JS Filters, Creating Custom Filters

### Unit 7: Directives

Introduction to Directives, Directive Lifecycle, Binding controls to data, matching directives, Using Angular JS built-in directives, Creating a custom directive

### Unit 8: Controllers

Role of a Controller, Controllers & Modules, Attaching Properties and functions to scope, Nested Controllers, Using Filters in Controllers, Controllers in External Files

  
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### **Unit 9: Angular JS Modules**

Introduction to Angular JS Modules, Bootstrapping Angular JS

### **Unit 10: Angular JS Forms**

Working with Angular Forms, Model Binding, Forms Events, Updating Models with a Twist, Form Controller, Validating Angular Forms, \$error object

### **Unit 11: Scope**

What is scope, Scope Lifecycle, Scope Inheritance, Scope & Controllers, Root scope, Scope Broadcasting, Two-way data binding, Scope Inheritance, Scope & Directives, \$apply and \$watch, Scope Events

### **Unit 12: Dependency Injection & Services**

What is Dependency Injection, Creating Services, Factory, Service & Provider, Using Dependency Injection, What are services, Using Angular JS built in services

### **Unit 13: Single Page Application (SPA)**

What is SPA, Pros and Cons of SPA, Passing Parameters, Changing location, Installing the ng Route module, Configure routes, Resolving promises, Creating a Single Page Apps

### **Unit 14: Angular JS Animation**

ng Animate Module, CSS Transforms, CSS Transitions, Applying Animations

### **Unit 15: Creating Web Server**

Creating Web Server, Sending Requests, Handling http requests

### **Unit 16: Database Connectivity**

Connecting String, Configuring, Updating Records, Working with Select Command, Deleting Records

  
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## **Evaluation Criteria:**

### **Key to Grades**


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A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “Angular JS” conducted in the year 2018-19**


A certificate course of 45 hours duration on “Python” was conducted by the Department of Computer Science. The students of III BCA were enrolled to the course and the strength of the course was 10. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Advanced Diploma on Angular JS 2019-20**

SL. NO.	NAME
1	Karunakara
2	Rahul
3	Adarsha
4	Sannidhi Kharvi
5	B.Nishantha Shettigara
6	Prajwal

  
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Class: III B		Month	11	11	11	11	11	11	11	11
Roll No.	Name	Date	19	20	21	22	23	24	25	26
		Sl. No.	1	2	3	4	5	6	7	8
193	Rahul		1	2	3	4	5	6	7	8
194	Karanakav		1	2	3	4	5	6	7	8
195	Pragwal		1	2	3	4	5	6	7	8
196	Nishanth		1	2	3	4	5	6	7	8
197	A darsa		1	2	3	4	5	6	7	8
198	Sannidhi khawar		1	2	3	4	5	6	7	8

  
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 Chandarkars' Arts & Science College  
 Kundapura, Udupi Dist. - 576 201

Shandarkars' Arts & Science College  
Mundapura, Udupi Dist. - 576 201



# Academy of General Education, Manipal

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**Department of Computer Science**


**A BOS-Certificate course & Add-on course of Computer Science meeting was held on 03 -06-2019 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr. Ganesh K. 

Mrs. Vijaylaxmi N. Shetty 

Mr. Krishna 

Dr. M.B Nataraj 

**Resolution**

1. We have finalized the syllabus for C++, Data Structures ,Graphics and Design certificate courses.
2. Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
**PRINCIPAL**  
Bhandarkars' Arts & Science College  
Kundapura, Udupi Dist., - 576 201

  
**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura

Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

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6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
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9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.



12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



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# CERTIFICATE COURSE IN PHP



## Objective of the Course:

The objective of this course is to provide the necessary knowledge to design and develop dynamic, database-driven web applications using PHP version 5. Students will learn how to connect to any ODBC-compliant database, and perform hands on practice with a MySQL database to create database-driven HTML forms and reports etc. Students also learn how to configure PHP and Apache Web Server. Comprehensive lab exercises provide facilitated hands on practice crucial to develop competence web sites.

## Introduction

The Origin of PHP, PHP is better than Its alternatives, Interfaces to External systems, Hardware and Software requirements, What a PHP Script Looks Like, Web Designing Basics and WYSIWYG Editor, Receiving User Input, Repeating Code.

## Basic PHP Development

How PHP scripts work, Basic PHP syntax, PHP data types, Google Caffeine, displaying type information, Testing for a specific data type, Changing type with Set type, Operators, Variable manipulation, Dynamic variables, Static vs. Dynamic Optimization, Analytics, Analysis and ROI Concept

## String Manipulation

Formatting String for Presentation, Formatting String for Storage, Joining and Splitting String, Comparing String, Matching and replace Substring

## Control Structures

If(), else if() and else if condition Statement, The switch statement, Using the ? operator, Using the while() Loop, The do while statement, Using the for() Loop, Breaking out of loops, Nesting loops, Summary

## Functions

What a function, Creating a function, Returning value from function, User-defined functions, Dynamic function calls, Variable scope, Accessing variable with the global statement, Function calls with the static statement, Setting default values for arguments, Passing arguments to a function by value, Passing arguments to a function by reference, Testing for function existence Arrays, Single-Dimensional Arrays, Multidimensional Arrays, Associative arrays, Accessing arrays, Getting the size of an array, Looping through an array, Looping through an associative array, Examining arrays, merging arrays, Sorting arrays, Sorting an associative arrays

## Working With The File System

Creating and deleting a file, Reading and writing text files, Working with directories in PHP, Checking for existence of file, Determining file size, Opening a file for writing, reading, or appending, Writing Data to the file, Reading characters

## Working With Forms

  
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Forms, Super global variables, Super global array, A script to acquire user input, Importing user input, Accessing user input, Combine HTML and PHP code, Using hidden fields, Redirecting the user, File upload and scripts, Delete a File

### **Working with Regular Expressions**

The basic regular expressions, Matching patterns, Finding matches, Replace patterns

### **Classes And Objects**

Object oriented concepts, Define a class, Class attributes, An Object, Creating an object, Object properties, Object methods, Object constructors and destructors, Class constants, Static method, Class inheritance, Abstract classes, Final keyword, Implementing Interface, Object serialization, Understanding Advance and New, Checking for class and method existence, Iterators

### **Introduction To Database**

What is RDBMS technology?, Introduction to SQL, Connecting to the MYSQL, Selecting a database, Adding data to a table, Displaying returned data on Web pages, Finding the number of rows, Looping through database, Inserting data, Deleting data, Entering and updating data, Executing multiple queries, Understanding Primary and Foreign Keys, Understanding Database Normalization, Dealing with Dates and Times

### **Cookies**

What is a Cookie?, Setting time in a cookie with PHP, Deleting a cookie, Creating session cookie, Working with the query string

### **Session**

what is session?, Starting a session, Registering Session variables, working with session variables, destroying session, passing session Ids, encoding and decoding session variables, How to increase session expire time, How to work session without cookie?

### **Advance PHP techniques**

Introduction about FTP/SMTP server, Math functions, File upload, File Download, E-mail with PHP, PHP configuration file, Error tacking and debugging

### **Books Recommended for Reading and Reference:**

1. PHP: The Complete Reference-Steven Holzner
2. Open Source Development with LAMP- James Lee

  
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## **Evaluation Criteria:**

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B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “PHP” conducted in the year 2018-19**

A certificate course of 60 hours duration on “Python” was conducted by the Department of Computer Science. The students of III BCA were enrolled to the course and the strength of the course was 45. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Advanced Diploma on PHP 2019-2020**

SL. NO.	NAME
1	Divya K
2	Nagalakshmi C
3	Prathibha
4	Pavithra
5	Deeksha H.K
6	Mangala
7	Dhanushree
8	Kavya Poojary
9	Chaitra
10	Sahana
11	Shilpa
12	Sushma
13	Akshaya
14	Sangeetha
15	Sowmya
16	Shraraksha
17	Navarathna
18	Bhairav Vinayak Balgi
19	Divya P
20	Shilpa N Poojary
21	Kavyashree
22	Anusha
23	Manjunatha Acharya
24	B Sinchana Acharya
25	Sachin
26	Keerthish Upadhyia
27	Sharath
28	Sweetie Fernandes
29	Abhinanda
30	Shreevatsa Uday Upadhyia
31	Joyeston Mendonca
32	Prasanna
33	Vijaya
34	Vignesh



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**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Certificate Course 2018-19**

**PHP**

Roll No	Name	Class
160980	Alfya	III BCA-B
160903	Supriya Poojary	III BCA-A
160960	Sindhu S Vaidya	III BCA-A
160902	Supreetha	III BCA-A
160873	Deepthi D. S	III BCA-A
160878	Jesmitha	III BCA-A
160855	Nakshita	III BCA-A
160901	Supreetha	III BCA-A
160906	Heena Parvin Sheikh	III BCA-B
160895	Shashirekha	III BCA-A



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PHP

Section: AA B

Class - 12		Month	11	11	11	11	11	11	11	12	12	1			
Roll No.	Name	Day	19	20	21	22	23	24	25	26	27	28	29	30	31
		Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13
471	Panwar		h	8	12	16	20	24	28	29	30	31			
473	Jangra		h	8	12	16	20	24	28	29	30	31			
521	Ghanshyam		h	8	12	16	A	20	A	24	28	29	30	31	
506	Ghanshyam		h	8	12	16	20	24	28	29	30	31			
511	Abhinav		h	8	12	16	20	24	28	29	30	31			
507	Abhinav		h	8	12	16	20	24	28	29	30	A			
522	Gaba		A	A	h	8	12	16	20	21	22	23			
429	Mangaraj Adwaja		A	A	h	8	12	16	19	18	A				
531	Vijay		A	A	h	8	12	A	16	18	18	A			
443	Darshan		h	8	12	16	20	24	28	29	30	31			
452	Rohit		h	8	12	16	20	24	28	29	30	31			
430	Rohit		h	8	12	16	20	24	28	29	30	31			
458	Anil Kumar H.Y.		h	8											
435	Shiv		h	8	12	16	20	24	28	29	30	A			
516	Gaurav		h	8	12	16	20	24	28	29	30	31			
480	Shivam		A	A	8	12	16	20	24	25	26	27			
500	Ram		h	8	12	16	20	A	24	25	26	27			
529	Dishant		h	8	12	16	A	20	24	25	26	27			
490	Nagendra		h	8	12	16	A	20	A	21	22	23			
524	Dipak		h	A	8	12	16	20	24	A	25	26			
521	Shiv D.P.		h	8	12	16	A	20	24	25	26	27			
519	Anshu		h	8	12	16	A	20	24	25	26	27			
485	Kapil		h	8	12	16	A	20	A	21	22	23			
461	Dipak		h	8	12	16	20	24	25	29	30	31			
451	Shivam		h	8	12	16	20	A	A	21	22	23			
460	Surya Prakash		h	8	12	16	20	24	28	29	30	31			
482	Vijay		A	A	8	12	16	20	24	25	26	A			
455	Abhinav		A	A	8	12	16	20	24	25	26	27			
Signature of the Teacher															



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Mr. Krishna 

Dr. M.B Nataraj 

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**HOD**  
Department of Computer Science  
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Kundapura

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5.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
7.	Windows Basics & Office Automation	Ms.Akshatha Saklathi, Ms.Nagarathna, Mrs.Shreelatha
8.	Web Development	Ms.Swathi
9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.



12.	C++	Mr.Ganesh K
13.	Data Structures	Mr.Rajendra Hoblidar.
14.	Graphics and Design	Mr.Ganesh K



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## **React Js Course Syllabus**

Our React.JS Course equips the learner for developing a single-page or mobile applications and creates reusable components for web pages and mobile applications. We have designed React.JS Course Syllabus by industry experts as per the requirements of current trends. The React.JS Course Curriculum contains basic elements like introduction, JSX overview, Environmental setup, real-time applications, forms and UI, Component Lifecycle, Event Handling, and Styles along with advanced features such as router and navigations, Flux, Redux, and Unit testing methods. Check out the detailed React.JS Course Content below.

### **Introduction to React**

- What is React?, Why React?, React version history, React 16 vs React 15m, Just React – Hello World, Using create-react-app, Anatomy of react project, Running the app, Debugging first react app

### **Templating using JSX**

Working with React. CreateElement, Expressions, Using logical, operators, Specifying attributes, Specifying children, Fragments

### **About Components**


Significance of component architecture, Types of components, Functional, Class based, PureComponent Composition

### **Working with state and props**

What is state and its significance, Read state and set state, Passing data to component using props, Validating props using propTypes, Supplying default values to props using defaultProps

### **Rendering lists**

Using react key prop, Using map function to iterate on arrays to generate elements

  
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## **Event handling in React**

Understanding React event system, Understanding Synthetic event, Passing arguments to event handlers

## **Understanding component lifecycle and handling errors**

Understand the lifecycle methods, Handle errors using error boundaries

## **Working with forms**

Controlled components, Uncontrolled components, Understand the significance to default Value prop, Using react ref prop to get access to DOM element

## **Context**

What is context, When to use context, Create Context, Context.Provider  
Context.Consumer, Reading context in class

## **Code-Splitting**

What is code splitting, Why do you need code splitting, React.lazy  
Suspense, Route-based code splitting

## **Hooks**

What are hooks, Why do you need hooks, Different types of hooks  
Using state and effect hooks, Rules of hooks

## **Just Redux**

What is redux, Why redux, Redux principles, Install and setup redux,  
Creating actions, reducer and store

## **Immutable.js**

What is Immutable.js?, Immutable collections, Lists, Maps, Sets

  
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## **Evaluation Criteria:**

### **Key to Grades**

<b><u>Grades</u></b>	<b><u>Marks Range</u></b>
A1	95-100
A2	90-94
B1	80-89
B2	70-79
C1	60-69
C2	50-59
D1	40-49
D2	33-39
E	BELOW 33

## **Report on Certificate course in “React JS” conducted in the year 2018-19**

A certificate course of 45 hours duration on “Python” was conducted by the Department of Computer Science. The students of III BCA were enrolled to the course and the strength of the course was 5. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Advanced Diploma on React JS 2019-2020**

SL. NO.	NAME
1	Anusha
2	Nishmitha
3	Denvila Lincia D'Silva
4	Tasmiya
5	Hafsa
6	Sushmitha B.S

  
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Kundapura, Udupi Dist., - 5

Section :

Class :

Roll No.

Name

Month

Date

Sl. No.

12	12	12	01	01	01	01	01	01	01	01
20	22	23	03	03	10	12	16	18	22	22
1	2	3	4	5	6	7	8	9	10	10
1	2	3	4	5	6	7	8	9	10	10
1	2	3	4	5	6	7	8	9	10	10
0	1	2	3	4	5	6	7	8	9	9
1	2	2	3	4	5	6	7	8	9	9
1	2	3	4	5	6	7	8	9	10	10
1	2	3	4	5	6	6	7	8	9	9

170/403 Hafsa  
 454 Gushmitha  
 465 Tasmiya  
 407 Anusha  
 402 Denvila  
 427 Nishmitha

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# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

(Reaccredited at "A" Grade with 3.32 CGPA)



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Mr./Ms.....has under gone

a Certificate Course in.....

during the year ..... and has secured .....grade.

Principal

Registrar

**BHANDARKARS' ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**

**Department of Computer Science**

**A BOS-Certificate course & Add-on course of Computer Science meeting was held on 03 -06-2019 at 2.00 PM .**

**Agenda**

- Add-on and Certificate courses
- Other Matter

**BOS Members:**

Mr.Ganesh K.

Mrs.Vijaylaxmi N.Shetty

Mr.Krishna

Dr.M.B Nataraj

**Resolution**

- 1.We have finalized the syllabus for C++, Data Structures ,Graphics and Design certificate courses.
- 2.Discussed and finalized number of theory and practical hours for each courses and prepared the scheme of examination.

  
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**HOD**  
Department of Computer Science  
Bhandarkars' Arts & Science College  
Kundapura

Staff team to conduct each certificate course and add –on course was decided. The list is as follows:

Sl.No	Certificate/Add on Course Name	Staff Team
1.	Add –on course on Computer hardware and Computer Applications (Certificate Level)	Mr.Ganesh K., Mr.Krishna, Mr.Rajendra Hoblidar,
2.	Add –on course on Computer hardware and Computer Applications (Diploma Level)	Mrs.Vijaylakshmi N.Shetty, Mr.Vinayanand Naik, Mr.Sandesh.
3.	MATLAB	Mr.Ganesh K, Mr.Sandesh A. Ms.Chaya Kharvi
4.	Android App Development	Mr.Giriraj, Mr.Mukunda Ms.Poornima
5.	Python	Mr.Amar Michale Sequeira, Ms.Amrutha C.
6.	Tally	Mr.Ramachandra Achari, Ms.Shruthi.S
7.	Windows Basics & Office Automation	Ms.Akshatha Saklathi, Ms.Nagarathna, Mrs.Shreelatha
8.	Web Development	Ms.Swathi
9.	PHP	Mr.Ramachandra Achari, Ms.Swathi
10.	ANGULAR JS	Mr.Rajendra Hoblidar.
11.	React JS	Mr.Amar Michale Sequeira.



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**BHANDARKARS ARTS AND SCIENCE COLLEGE,  
KUNDAPURA**



**Department of Computer Science**

**Certificate Course syllabus for Internet and Web Designing**

**Objective of the course:** To impart the knowledge of computer in Internet and Web Designing among the students who have the basic the knowledge of computer programming.

**Duration of the Course:** 60 Hours.

**Course contents:**

**UNIT - I**

**Internet Basis:** Basic concepts, Communication on the Internet, establishing connectivity on the Internet, Services of Internet.

(2 Hrs)


**UNIT - II**

**HTML(Hyper Text Markup Language):** Introduction, HTML tags- paired and singular, Structure of HTML Program, Text formatting Tags-<p>, <br>, <H1>-----</H6>, <HR>, <B>, <I>, <U>, <CENTER>, <FONT>, Lists-Ordered and unordered lists, Adding Graphics using <IMG>, Tables, Linking Document, Frames, Project in HTML, Dream Viewer

(14 Hrs)

**UNIT - III**

**Java Script Programming:** Introduction, Advantages of Java Script, basic Programming Techniques, Data type and Literals, Type Casting, Creating

  
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variables, Arrays, Operators and Expressions, Java Script Programming Constructing , -if, if-else, while, do while, for,label, break, continue, User Defined Functions, Dialogue Boxes,placing text in browser.

Java Script DOM(Document Object Model), Form Object with events and event handling programming, other built in objects, Projects in Java Script.

(16 Hrs)

#### **UNIT - IV**

**VBScript Programming:** Introduction, Incorporating Script in HTML, Data type and Declaring variables,Operators, Expressions, Control structures and Statements, Procedures and functions, Events and event handling programming, Object programming in VBScripts. (16 Hrs)

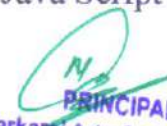
#### **UNIT - V**

**ASP(Active Server Pages)- A server side programming:** Introduction to server side programming, Using server side includes, using request object, using response object, Using application, Session and Server Objects, Integrating with the database. (12 Hrs)

**Method of Evaluation:** 100 marks examination conducted at the end of the course. (Theory 40 + Practical 60).

#### **Reference Materials:-**

1. Web Enabled Commercial Application Development-IVAN BAYROSS-BPB Pub.
2. ASP 3 programming Bible-Eric A Smith, MCSD
3. Rapidex Computer Courses – Java Script and VB Script –Benjamin Aumaille

  
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E	BELOW 33

## **Report on Certificate course in “Internet and Web Design” conducted in the year 2018-19**

A certificate course of 60 hours duration on “Python” was conducted by the Department of Computer Science. The students of III BCA were enrolled to the course and the strength of the course was 45. The classes were conducted every Saturday afternoon from 2pm to 5pm. The staff members of the department extended their sincere service to the course. The course was winded up with examination and grading of the students based on their performance. The eligible students received the certificate of Academy of General Education, Manipal.

**Bhandarkars' Arts and Science College Kundapura**  
**Department of Computer Science**  
**Certificate Course 2018-19**  
**WEB DEVELOPMENT**

Roll No	Name	Class
180661	NEHA S	II BSC MPCs
180630	GOWTHAMI G KAMATH	II BSC MPC
180677	CHETHANA G	II BSC
180753	AMRUTHA N	II BSC BZC
180670	VANDHYASHREE H S	II BSC MPCs
180646	NANDINI	II BSC MPCs
180626	SAHANA ACHARYA	II BSC MPC

  
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2018-19

## BHANDARKARS' ARTS &amp;

Class: Web development Section:

RECORDS OF

[illegible]



# Academy of General Education, Manipal

Udupi Dist., Karnataka State, India

**Unit : Bhandarkars' College Vocational Training Centre, Kundapura**

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