

Dattajirao Kadam Arts, Science and Commerce College has introduced nine career and market-oriented, skill enhancing add-on courses that have utility for job, self-employment and empowerment of the students. At the end of three years, the students will be equipped with a Certificate/Diploma along with a conventional degree in Science/Arts/Commerce. The college offers a wide range of career-oriented courses in various related areas. The courses offered are of inter-disciplinary nature. There is no watertight compartment and students shall have the freedom to diversify into various fields not necessarily related with their core discipline

Principal

Career Oriented Course in Library Management

Run By Department of library

The main importance of this course is to develop entrepreneurship quality in students.

- Job Opportunity at School level Library.
- Job Opportunity at private library.
- The Develop confidence and skill for doing job: By understanding Library management and performing practical about library, A student develop skill and confidence to get jobs.
- They at experience How to Run College Library.
- Career Orientation with library management focus on quality and excellence.
- Encourage and skill oriented and value added skill development.
- To develop knowledge of library management.

- 1. The course affiliated to University**
- 2. Duration Of Course : One Year**
- 3. Eligibility Of admission : 12th Pass**
- 4. Intake Capacity : Min 25-Max 50 students**

5. Fee Structure :	Admission Fees - Rs 25/-
	Alumni - Rs 25/-
	Tuition Fee - Rs 300/-
	Exam Fee – Rs 150/-
	Total Fee – Rs 500/-

6. Exam Structure and passing Criteria:

Theory: 100 Marks

Practical: 100 Marks

For passing minimum required marks are 35% in each paper.

7. Syllabus Of Course : This Course is divided in to theory (paper-V) Practical (paper-I) and project work

Paper No-1 (Library Cataloguing Theory)

1. Cataloguing – Meaning – Objective & Scope
2. Cataloguing & Bibliographic Disruption
3. Cataloguing Codes AACR – II
4. Physical Forms Cataloguing

Paper No. 2 (Library Classification)

1. Classification – Definition, Object, Call Number
2. Schemes of Classification.
3. Notation: - Need, Function.
4. Subject Classification and Cataloguing

Paper No.- 3 (Library Management)

1. Management – Concept, Objective, Function.
2. Human Resource Management
Organization Structure, Job Description and Analysis,
Job Evaluation, Recruitment.
3. Financial Management.
Budget, Budget techniques and method, library Budget.
4. Planning.
Concept, Definition, Need, Purpose and Types.
5. Book Acquisition Management
Book Selection and Purchasing, Collection
Development Book orders.

Paper No.-4 (Computer and Information Sources and Services.)

1. Characteristics of Computer
2. Evaluation of Computer
3. Basic Computer Organization.
4. Information Sources and their use in library.
5. Information Reference Services.

Paper No.-5 (Library Organization).

1. Library: - objective and Function.
2. Different Types of libraries and functions.
Educational libraries, Public Libraries, National
Libraries, and Special Libraries.
3. Five Laws of Library Science.

4. Library Admi. Committees Body.
5. Library Security

Paper No.- 6 (Practical)

1. Library Classification
D. D. C. 50 Marks
(Dewey decimal classification)

2. Library Cataloguing
A.A.C.R. II 50 Marks
(Angelo American Catalogue Rule)

8. Faculty involved in teaching the course :

1. **Mr. Khandekar G.B.** –
Library Cataloguing, Computer and Info. Sources and services.

2. **Mr. Patil R.R.** –
Library Classification

3. **Miss. Hattarge S.P.** –
Library Management, Library Organization.

4. **Mr. Shitole B.A.** – Library Cataloguing

***Certificate course in Information and
Computer Basics
&
Diploma course in Information and Computer
Basics
Run By
Department of Electronics***

The UGC initiated a major programme of vocationalisation at undergraduate level during VIIIth Plan (1994-95). The scheme was designed to ensure that graduates who pass out after completing these courses would have knowledge, skills and aptitude for gainful employment in the wage sector in general and self-employment in particular.

The UGC during Xth Plan decided to recast the vocationalisation programme at undergraduate level under a modified scheme of CAREER ORIENTED PROGRAMME. The UGC has introduced a flexible system of certificate/diploma/advanced diploma programme, which run parallel to the conventional B.A., B.Com. and B.Sc. degrees.

The Universities/colleges may formulate their own, ‘Need-Based’, Career-oriented courses.

Objectives of course:

The objective of the scheme is to introduce career and market-oriented, skill enhancing add-on courses that have utility for job, self-employment and empowerment of the students. At the end of three years, the students will be equipped with a Certificate/Diploma/Advanced diploma in an add-on orientation course along with a conventional degree in Science/Arts/Commerce.

1. The course affiliated to University

2. Duration of courses: 1 year each

3. Eligibility for admission: 12th pass for Certificate course

4. Intake capacity: Min 25 – Max 40 students.

5. Fee Structure: Free

6. Exam structure and Passing Criteria

- i) There will be two Theory papers and one practical paper each of 100 marks for each course.
- ii) There will be separate head of passing for each paper.
- iii) Minimum marks required for passing should be 35%

7. Syllabus of Courses:-

Certificate Course in Information and Computer Basics	
Paper 1 : Computer Fundamentals and Network	Hrs
1. Computer Fundamentals	10
Data representation, Data Types, representing Data, Hardware concepts, Main memory, Input and Output in computer.	
2. Computer Software	10
Operating Systems: definition, Evolution, Components. Algorithm: Concepts. Programming Languages Evolution. Data structures and Abstract Data structures (Definitions only)	
3. MS office Suit	30
Contents of “My Computer” MS World, MS Excel, MS Power Point	
4. Computer Network	10
Networks, OSI Model, Types of Networks (LAN, MAN, WAN), Connecting Devices, Repeaters, Bridges, Routers, Gateways, Internet and TCP/IP	
5. Number Representation	10
Decimal and binary, Conversions, Integer Representation, Floating point representation, Hexadecimal and octal conversions, Arithmetic operations. Logical Operation.	
Paper 2: Internet, Database and C language	
1. Working of Internet and E mail	Hrs
	06
Working of Internet Internet and account and Addressing. Electronic Mail: What is E-Mail, Mail Transfer Protocol,	

Mail Servers, E-Mail addresses, Structure of E-Mail, Voice Mail and Video Mails operations. Logical operation.

2. Internet Technology. 06

WWW : Types of Web site, Web pages and Links, URL, Web Server and Proxy Server, Visiting websites, Search engines. Building Web sites: HTML, tags, Multimedia in Web site Hyper links and frames.

3. Microsoft Access 18

Creating databases, Building Database Tables, Sorting and Filtering Databases.

4. Programming in C 30

Foundation of C Decision control Structure, Loop control, Case, Function, Array. String Manipulation, Structures and pointers.

5. Files and I/O in C 10

Files Structures

Files Manipulation

Practical 60 Hrs

Paper I

1. Observing and connecting computer peripherals.
2. Observing motherboard and system setup utilities.
3. Installing an Operating system.
4. Exploring “My computer”, Control panel.
5. Creating, Editing and Formatting text in ‘MS Word’.
6. Laying out and Designing in ‘MS Word’.
7. Tables and Printing in ‘MS Word’.
8. Mail merge and Envelop in ‘MS Word’.
9. Creating, Editing and Formatting workbook in ‘MS Excel’.

10. Using Formulas and Functions and 'MS Excel'.
11. Adding charts and macros in 'MS Excel'.
12. Creating and customizing presentation in 'Power Point'.
13. Charts and Drawing in 'Power Point'.
14. Slide shows and presentation in 'Power Point'.
15. Networking in Windows.

Paper 2

1. To E-Mail and Searching info on web search engines.
2. Creating database and Tables.
3. Creating and Running queries.
4. Using forms.
5. Using Reporting tools
6. Writing a program in C that uses 'if----else' decision structure.
7. Writing a program in C that uses 'While' loop structure.
8. Writing a program in C that uses 'For' loop structure.
9. Writing a program in C that uses 'Switch ----case' statement.
10. Writing a program in C that uses Function calling methods.
11. Writing a program in C that uses Structure.
12. Writing a program in C that counts characters, spaces, tabs and new line in a file.
13. Creating a file copy program in C.
14. Writing a program in C that writes a i/p string into a file and also displays a String from a file.
15. Designing a web page having a table with a picture and a animation as content of the Table.

Diploma Course in Information and Computer Basics

Total Workload: - 300 hrs

Theory: 120 hrs

Paper I: Operating System and Case study of Linux (60 hrs)

Paper II: Object Oriented Programming with C++ (60 hrs)

Paper III: Practical's, Field Work and Project work

Practical's (Based on theory paper I & II) (60 hrs)

Field Work/Project work (120 hrs)

Paper I: Operating System and Case study of Linux (60 hrs)

Unit – 1: Introduction of Operating Systems (10)

Definition of Operating system, History, Types of O.S. - Batch processing, multiprogramming, multitasking, multiprocessing, time sharing, multithreading, and multiuser, Overview of O.S. - Windows operating system.

Unit – 2: Introduction to Process and Memory (10)

Introduction to processes, process models, process scheduling, memory management, types of memory management.

Unit – 3: Introduction to Linux operating system (10)

History and evolution, Linux Features, Kernel and shell, Kernel shell relationship, Features of Linux, Architecture of Linux O. S., Linux File System, Login, Logout, Getting familiar with Linux desktop - GNOME & KDE desktop.

Unit – 4: Linux commands

(15)

General Purpose Utilities – cal, date, echo, print, bc, script, passwd, id, who, uname, tty, man

File management commands – cat, cp, rm, mv, more, file, wc, od, cmp, comm, diff, gzip & gunzip

Directory management commands – pwd, cd, mkdir, rmdir, ls

file ownership, permission

Unit – 5: Shell Programming

(15)

Working with vi editor, mode of operations, Creating a script, making a script executable, Shell syntax: variables, Program controls: if-else if, case, for, while, until, simple shell Programs, Logical operators: && and ||, Built-in shell commands: break, continue, echo, eval, exec, exit, exp, shift.

References:

1. “Operating Systems Design and Implementation” by Andrew S. Tanenbaum and Albert S Woodhull, PHI Learning Pvt. Ltd.
2. “Operating System” by Achyut Godbole, Tata MaGraw-Hill Publishing Company Ltd.
3. “Operating System” by P Balkrishna Prasad, Scitech Publication.

4. “UNIX Concepts and Application” by Sumitabha Das, Tata MaGraw-Hill Publishing Company Ltd.
5. “Unix Operating system” by Bach
6. “Red Hat Linux Bible” - WILEY – Dreamtech
7. “Unix shell programming” by Yashwanr Kanetkar, BPB Publications.

Paper II: Object Oriented Programming with C++

Unit–1: Fundamentals of Object Oriented Programming (10)

Basic concepts of OOP, Benefits and features of OOP, Structure of C++ program, Class - Definition, syntax, Member functions - Defining member functions (inside and outside the class), Static data member, defining objects.

Unit–2: Constructor and Destructors (10)

Constructors, Types of constructors - Default, Parameterized, and copy, Characteristics of constructors, concept of destructor, Concept of function overloading, Friend function, Rules for defining friend functions, Common friend for two classes.

Unit–3: Operator overloading and Inheritance (10)

Operator overloading – Definition, Defining overloading function, rules, Overloading unary and binary operators. Inheritance – Meaning, Types- single, multilevel, multiple, hierarchical, hybrid, virtual base class, abstract class.

Unit-4: Polymorphism

(10)

Polymorphism- Meaning, compile time and run time, pointers to objects, Virtual functions, Rules for virtual function, pure virtual function.

Unit-5: generic templates

(10)

Class templates, class templates with multiple parameters, function templates, function templates with multiple parameters, member function templates, and non type template arguments.

Unit-6: Exception Handling

(10)

Basics of exception handling, exception handling mechanism, throwing mechanism, catching mechanism, Rethrowing exception, specifying exceptions.

References: -

1. "Object Oriented Programming" By E. Balagurusamy
2. "Mastering C++" By Venugopal
3. "C++ Programming" By D. Ravichandran
4. "Object Oriented Programming in C++" By Dr. G. T. Thampi & Dr. S. S. Mantha

Paper III: Practical (Based on Paper – I & II) (60 hrs)

Practical based on Paper-I (30 hrs)

Use of Basic Commands - Based on Unit - 4

1. Interacting with Linux -
Login , Logout , Passwords, Use of General Purpose Utilities
2. Handling files –
Create ,Copy , move , rename , delete and print files
3. Handling directories- Making new directories, changing directories,
removing directories, copy, move files within one to another directory.
4. Listing file attributes , changing access permissions using chmod command

Simple programs using shell scripts - Based on Unit - 5

1. Write a shell script to add two numbers, which are supplied as command line argument, and if the numbers are not given the error is to be shown.
2. Write a shell script to find out smallest and largest number among three numbers.
3. Write a shell script to calculate the area of triangle.
4. Write a shell script to calculate the factorial of given number.

5. Write a shell script to print the following pattern:

```
      *
     * *
    * * *
   * * * *
```

6. Write a shell script to find out prime numbers in the given range.
7. Write a shell script to arrange the numbers in ascending / descending order.
8. Write a shell script to check given string is palindrome or not.
9. Write a shell script to see current date, time, username, and current directory.

Practical based on Paper-II

(30 hrs)

Programs using classes

1. Write a C++ program to calculate addition of two numbers (Inside the class definition).
2. Write a C++ program to calculate area & circumference of circle (Outside the class definition).
3. Write a C++ program to implement a string class.
4. Write a C++ program to show use of copy constructor.
5. Write a C++ program to illustrate an implementation of destructor.
6. Write a C++ program to interchange the values of two objects of different classes using friend function (pass by value / pass by reference).

7. Write a C++ program using concept of function overloading to calculate area of circle, rectangle & triangle.
8. Write a C++ program using concept of function overloading to find out power (A number “m” to a power “n”). Assume that “m” may be integer or float, but “n” is always integer. Write a main that gets the values of “m” and “n” from user to test the function overloading.
9. Write a program using C++ to implement concept of overloading of ‘-’ operator.
10. Write a program using C++ to implement concept of single inheritance.
11. Write a program using C++ to implement concept of multiple inheritance.
12. Write a program using C++ to implement virtual function.
13. Write a C++ program to illustrate how a try block invokes a function that generates an exception.
14. Write a C++ program to illustrate the use of a vector class template for performing the scalar product of in type vectors as well as float type vectors.

Diploma in Computer Based Textile Design

Run By

Department of B.C.A

- Ichalkaranji is a leading & famous Manchester city and these days it is growing fast so that employment chances are in textile are also being increasing. Due to this situation this diploma course is formed.
- After doing this course, employment chances will be available in the textile industries. As well as students will get self – employment chances as software training for designing included in this diploma course.
- Besides Textile Calculations, Textile Management, Basic concepts of designing, Fabric Analysis, Fabric Inspection systems these subjects related to textile industry are included in this course. Due to this, career chances are available in the posts like Textile Designer, Illustrator, Textile Management, Textile Checking, Textile Quality Inspector etc.

- 1. The course affiliated to University**
- 2. DURATION:** Diploma (One Y ear)
- 3. Eligibility Of admission :** 12th Pass

4. Intake Capacity : Min 25-Max 50 students

5. Fee Structure: Admission Fee: ₹ /-
Alumni: ₹ /-
Tuition Fee: ₹ /-
Exam Fee: ₹ /-
Total Fee: ₹ /-

6. Exam Structure and passing Criteria

A) Theory

- The theory examination shall be at the end of the each semester.
- All the general theory papers & vocational theory papers shall carry 50 marks.
- All practicals shall carry 50 marks each.
- Evaluation of the performance of the students in theory and practical shall be on the basis of semester examination as mentioned above.
- Question paper will be set in the view of entire syllabus preferably covering each unit of the syllabus.

B) Practical

Evaluation of the performance of the students in practical shall be on the basis of semester examination (Internal assessment at the end of Semester - I and Semester - II).

C) Standard of Passing –

The maximum credits for Diploma in Computer Based Textile Design semester course (of two semesters) will be $30 \times 2 = 60$ credits. To pass in each paper students are required to obtain 4 grade points in each paper, it means 20 Marks for 50 Marks Theory / Practical papers.

7. Syllabus of Course:-

Semester - I **Paper – I : Business Communication - I**

Work Load - 2
Theory – 2 Lectures / Week
Practical – ---

Total Marks – 50
Theory - 50 Marks
Practical – ---

Section - I: Communication Skills

Unit 1 Describing Objects/ People/ Places

Unit 2 Describing Daily Routine

Unit 3 Narration (what is happening now/ what happened before)

Section - II:

Reading Comprehension

Unit 4 Runner, by Romen Basu

Unit 5 In Sahyadri Hills, A Lesson in Humility, by Sudha Murthy

Semester - I
Paper – II : Basics of Textile Designing

Work Load - 5
Theory – 3 Lectures / Week
Practical – 2 Lectures/Week/Batch

Total Marks – 100
Theory - 50 Marks
Practical – 50 Marks

Unit – I Introduction

- Fibre to fabric process
- Types of yarn
- Terms & definitions used in textiles

Unit – II Fabric Forming Methods

- Weaving
- Knitting
- Nonweaving
- Weaving preparatory machines & their objects

Unit – III Types of Weaving Machines (Looms)

- Passage of warp through weaving machine
- Primary, Secondary & Auxiliary motion of looms

Unit – IV Basic Concepts of Design

- Interlacement diagram & its representation on graph paper
- Concept of design
- Draft peg plan and denting order
- Different types of drafts used in weaving

Practical –

- 1) Study of process flow chart in spinning.
- 2) Study of process flow chart in weaving.
- 3) Study of process flow chart in processing.
- 4) General study of loom.
- 5) Loom running.
- 6) Study of doobby & doobby pegging

References –

- 1) Woven cloth construction by A. T. C. Robinson, R. Marks, Textile Institute (Manchester, England)
- 2) Textile terms and definitions Book by The Textile Institute
- 3) Principles of Weaving by R. Marks and A.T.C. Robinson

Paper – III : Fabric Calculations

Work Load - 5

Theory – 3 Lectures / Week

Practical – 2 Lectures/Week/Batch
Marks

Total Marks – 100

Theory - 50 Marks

Practical – 50

Unit – I Yarn Numbering System

- Direct & indirect yarn numbering system & their calculations

Unit – II Fabric Weight Calculations

- Calculations of fabric weight in
 - a. gm/sq m
 - b. gm/m

Unit – III Fabric Engineering Calculations

- Crimp of warp, weft
- Cover factor
- Estimated reed count calculations

Unit – IV Costing Calculations

- Estimation of yarn required at different processes
- Cost of yarn
- Sizing cost
- Weaving cost
- Production cost

Practical –

- 1) Count EPI & PPI with pick glass.
- 2) Yarn count testing with wrap reel method.
- 3) Fabric GSM testing with GSM Cutter.
- 4) Estimation of reed count.
- 5) Estimation of yarn count by direct count balance.
- 6) Fabric shrinkage estimation.

References –

- 1) Textile Design and Colour: Elementary Weaves and Figured Fabrics by William Watson
- 2) Fabric Structure And Design by N. Gokarneshan

Paper – IV : Fabric Structure

Work Load - 3

Theory – 3 Lectures / Week

Practical – ---

Total Marks – 50

Theory - 50 Marks

Practical – ---

Unit – I

Plain Weave

- Design, Draft & peg plan
- Ornaments of plain weave
- Different types of fabrics produced with plain weave (e.g. poplin, shirting, suiting, tussler, saree, dhoti etc.)

Unit – II

twill weave

- Design, Draft & peg plan
- Right handed and left handed twill
- Warp faced and weft faced twill weaves

Unit – III

Satin weave

- Design, Draft & peg plan
- Satin and sateen weaves
- Selection of move number for different satin weaves

Unit – IV

Derivation of plain Weave

- Warp rib
- Weft rib
- Matt (regular & irregular)

References –

- 1) Textile Design and Colour: Elementary Weaves and Figured Fabrics by William Watson
- 2) Fabric Structure And Design by N. Gokarneshan

Paper – V : Basics of Computer

Work Load - 5
Theory – 3 Lectures / Week
Practical – 2 Lectures/Week/Batch

Total Marks – 100
Theory - 50 Marks
Practical – 50 Marks

Unit – I

Fundamentals

- Introduction, Characteristics, History & Evolution, Organization of Computers, Concept of Hardware & Software, Applications of Computers in Various Fields, Computer Hardware and Software

Unit – II

Peripheral Devices

- Input Devices – Keying: Keyboard, Touch screen, Pointing: Mouse, digitizer, Joystick and scanning devices: Scanner, OMR, OCR, and MICR.
- Output Devices –Monitors , Screen Image Projector, Printers & its types, Plotters.
- Memory Devices - Primary Memory & Secondary memory

Unit – III

Operating System

- Meaning and Definition, Structure of O.S., Types of O.S., Functions of O.S., Windows Operating system: Components of window- Desktop, windows explorer, control panel, Managing the files and folders, Accessories: Paint, calculator and notepad.

Unit – IV Computer Networking

- Concept of network: advantages and limitations, Communication modes, Network Types & Topology.

Practical –

- 1) Creating folder, cut, copy, paste, managing file and folder in windows.
- 2) Arrange icons, set display properties.
- 3) Adding and removing software and hardware.
- 4) Setting date and time, screen saver and appearance.
- 5) Using windows accessories.(Notepad, WordPad, Paint).
- 6) Settings of all control panel items.
- 7) Search file.

References –

- 1) Computer Fundamentals by P.K.Sinha and Priti Sinha
- 2) Computer fundamentals by Rajaraman
- 3) Computer Today – Basandara
- 4) Computer Fundamentals, Architecture & Organisation By B. Ram
- 5) Information technology by D. S. Yadhav.

Semester - II
Paper – VII : Business Communication - II

Work Load - 2
Theory – 2 Lectures / Week
Practical – ---

Total Marks – 50
Theory - 50 Marks
Practical – ---

Section - I: Communication Skills

Unit 1 Preparing a C.V. and Writing a
Letter of Application

Unit 2 Writing News Reports

Unit 3 Making Enquiries and Giving Instructions

Section - II:

Reading Comprehension

Unit 4 The Final Decision, by Anasuya Shankar

Unit 5 My Education, by Rabindranath Tagore

Unit 6 Telephonic Conversation, by Wole Soyinka

Paper – VIII : Fabric Structure & Analysis

Work Load - 5

Theory – 3 Lectures / Week

Practical – 2 Lectures/Week/Batch

Total Marks – 100

Theory - 50 Marks

Practical – 50 Marks

Unit – I Twill Weave Derivatives

- Broken Twill
- Herring Bone Twill
- Waved Twill / Zigzag Twill
- Elongated Twill
- Rearranged Twill
- Diamond Twill
- Diaper Twill
- Fancy Twill

Unit – II Satin Weave Derivatives & Towel Weaves

- Irregular Satin
- Sponge
- Mock Leno
- Huck - a - Back
- Honey Comb
- Brighten Honey Comb
- Crepe Weave

Unit – III Analysis of fabric of plain, twill, drill and satin weave

Unit – IV Fabric Analysis

- Analysis of fabrics of yarn dyed, dobby weave, extra warp and extra weft

Practical –

- 1) Analysis of plain weave fabrics.
- 2) Analysis of warp rib, weft rib fabrics.
- 3) Analysis of twill weave fabrics.
- 4) Analysis of satin weave fabrics.
- 5) Analysis of twill weave derivatives fabrics.
- 6) Analysis of towel weave fabrics.

References –

- 1) Textile Design and Colour: Elementary Weaves and Figured Fabrics by William Watson
- 2) Fabric Structure And Design by N. Gokarneshan

Paper – IX : Textile Designing Softwares

Work Load - 5

Theory – 3 Lectures / Week

Practical – 2 Lectures/Week/Batch

Total Marks – 100

Theory - 50 Marks

Practical – 50 Marks

Unit – I

- File Menu - New, Open, Save, Save as Page Set up, Print, Preview, Close, Exit.
- Edit Menu – Graph Setting, Design, Paper Setting
- Show Menu – Design window, Pattern window, Back view, Finished fabric, Wallpaper

Unit – II

- Yarn Menu – Yarn developments, Grindle yarns, Fancy yarns, Slub yarns, Multi-Colored yarns
- Generate Menu – Patterns – Regular Patterns, Irregular Patterns, Stripes / Checks
- Pattern Menu – Warp, Weft, Draft, Peg plan

Unit – III

- Miscellaneous Menu – Wallpapers, Modify Design Attributes, Fabric weight, Fabric Cover factor
- Help Menu

Unit – IV

- Feeding basic designs to softwares
- Creating simple plain stripes / checks
- Dobby stripes / doobby checks
- Yarn dyed patterns
- Designs & calculations in software
- Reading & technical sheet (Data sheet)

Practical –

- 1) Study of basic menus in designing software.
- 2) Feeding of basic fabric information to designing software.
- 3) Creating various designs available from library menu.
- 4) Feeding of basic designs in software.
- 5) Formation of dobby stripes designs.
- 6) Formation of dobby checks design.

References –

- 1) Manuals of textile designing softwares.

Paper – X : Production Planning & Control in Weaving

Work Load - 3
Theory – 3 Lectures / Week
Practical – ---

Total Marks – 50
Theory - 50 Marks
Practical – ---

Unit – I Warping & Sizing Sheet

- Yarn inward to sizing
- Yarn consumption at sizing
- Sizing count / warping count calculation
- Wastage at sizing

Unit – II Yarn / Beam Inward sheet

- Weft yarn inward
 - Beam inward
- ### **Yarn consumption sheet**
- Weft yarn requirement

Unit – III Yarn stock sheet

- Sizing stock
- Warping stock
- Weaving stock

Count wise stock report

Unit – IV Fabric Inspection Tools & Study of Fabric Defects

- 4 point system
- 10 point system

Study of Fabric Defects

- Starting marks
- Thick, Thin places

- Warp / weft patta
- Wrong drawing
- Wrong denting
- Miss end
- Design cut
- Dobby line
- Floats
- Loose pick
- Short pick
- Brocken pick
- Double pick
- Lacing
- Rupture
- Chappa
- Tight end / loose end
- Let of / Take up patta

Practicals –

- 1) Preparation of warping and sizing sheet by using MS - Excel.
- 2) Preparation of yarn/beam inward by using MS - Excel.
- 3) Preparation of weaving yarn consumption by using MS - Excel.
- 4) Fabric inspection.
- 5) Observation of fabric faults under microscope.
- 6) Preparation of stock sheets by using MS – Excel.

References –

- 1) Weaving material, machines and methods by M. K. Talukdar
- 2) Process Control in Weaving by M. C. Paliwal & P. D. Kimothi

Paper – XI : Microsoft Excel

Work Load - 3
Theory – 3 Lectures / Week
Practical – ---

Total Marks – 50
Theory - 50 Marks
Practical – ---

Unit – I Introduction

- Spread sheet application, Menus, Tool bars and icons
- Spreadsheet - Opening, saving, closing, printing file, setting margins, spread sheet addressing

Unit – II Entering And Editing Data

- Copy, cut, paste, undo, redo, find, search, replace, filling continuous rows and columns, inserting data, cells, columns, rows and sheet
- Tools- Error checking, spell check, formula auditing, tracking changes, customization .

Unit – III Data Computation & Function Types

- Data Computation – Setting formula, finding total in rows and columns
- Functions Types - Mathematical, Group, string, date and time

Unit – IV Formatting & Working with spreadsheet

- Formatting Spread Sheet - Alignment, font, border, hiding, locking, cells, highlighting values, background color, bordering and shading,

- Working With Sheet - Sorting, filtering, validation, consolidation, subtotals
- Charts - Selecting, formatting, labeling, scaling,

Practicals –

- 1) Creating & Editing Worksheet, Fill Handle.
- 2) Use Formulas and Functions.
- 3) Perform different calculations.
- 4) Preparing Charts.
- 5) Error checking, spell check, formula auditing.

References –

- 1) Microsoft Office-Excel 2007 inside out Microsoft Press Publication
- 2) Microsoft Office 2010 Bible- WILEY
- 3) Step by step 2007 Microsoft Office system by Curtis Frye, Joyce Cox, Steve Lambert.

Faculty involved in teaching the course:

- i. Mr. Akshay Ramesh Swami
- ii. Mr. Chetan Ashok Patil
- iii. Mr. Shrikrishna Haribhau Buchade
- iv. Miss Archana Bhupal Nandgave

Preparation of Household Chemicals

Run By

Department of Chemistry

The main importance of this course is to develop entrepreneurship quality in students.

- To make availability of self-employment: During this course students have been learning methods of preparation of many house-hold chemicals. This knowledge can be used to become good entrepreneurs.
- To develop confidence and skill for doing job: By understanding chemistry of household chemicals and performing practicals about house-hold chemicals, a student develops skill and confidence to get jobs.
- To develop skill for market survey: During this course students have been developing skills for market survey and like this position of household products in market. This market survey will help to choose product for self-employment.
- To develop knowledge of household chemicals.

1. **The course affiliated to University**
2. **Duration of course:** 3 months
3. **Eligibility for admission:** 12th pass
4. **Intake capacity:** Min 25 – Max 40 students.
5. **Fee Structure:**

Admission Fee:	Rs. 25/-
Alumni:	Rs. 25/-
Tuition Fee:	Rs. 500/-
Exam Fee:	Rs. 200/-
Total Fee:	Rs. 750/-

6. Exam structure and Passing Criteria

Theory:	30 Marks
Practical:	30 Marks
Project Work:	40 Marks
Total:	100 Marks

For passing minimum required marks are 35% in each paper.

7. **Syllabus of Course:** This course is divided into Theory (Paper-I), Practicals (Paper-II) and Project work.

Paper-I (Theory)

- Precautions to be taken while handling sanitary acids.
- Introduction of domestic chemicals like sanitary acid, phenyl, liquid soap, etc., cleaning action of acids.

- Sanitary acid- Statement of acid and base, types of acids and bases, indicators, strength of acids, Additives mixed in sanitary acid, Advantages and drawbacks of sanitary acids.
- Liquid Soap- Necessity of liquid soap, ingredients of liquid soap, cleansing action of liquid soap.
- Phenyl- Ingredients of phenyl, Method of preparation of phenyl, advantages and drawbacks of phenyl.
- Types of tiles.

Paper-II (Practical & Project Work)

- To determine strength various sanitary acid by titrimetric method.
- Market survey for branded sanitary acid available in market to determine their strength.
- To study effect of acid strength on tiles.
- Preparation of sanitary acids.
- To study advantages and disadvantages of various acids on different tiles.
- Preparation of phenyl.
- Market survey for branded phenyl available in market.
- Market survey for branded liquid soap available in market.
- Comparison of manufacturing cost of various domestic chemicals.

- Various types of packing material required for domestic chemicals.
- Survey of market position of domestic chemicals.
- Evaluation-Project work.

8. Faculty involved in teaching the course:

1. Mr. B. C. Patil
2. Mr. S. S. Ankushrao
3. Dr. A. S. Tapase.
4. Mr. P. M. Mhaldar (C.H.B.)
5. Mr. N. H. Waghmare (C.H.B.)
6. Mr. S. S. Yesane (C.H.B.)
7. Mr. S. R. More (C.H.B.)

Nursery Techniques
Run By
Department of Botany

Nursery is a place where plants are propagated and grown to usable size.

Nursery is the basic need of Horticulture .The Propagation of Plants is the care of Horticulture nurseries. Several types of nurseries are categorized as vegetable plant nursery, fruit plant nursery, ornamental plant nursery, medicinal plant nursery, Rare plant nursery.

A certificate course in nursery technique is started for undergraduate students to –

- a) A develop entrepreneurship quality in students through self employment: various techniques for development of plant nurseries will be taught to students through theory and practical.
 - b) To develop self confidence and skill for employment or for Job opportunities.
- 1. Duration of course:** 6 months
 - 2. Eligibility for admission:** 12th pass
 - 3. Intake capacity:** 30 students
 - 4. Fee structure: Total Fee:** 200/- Rs per student

5. Exam structure and Passing Criteria:

SCHEME OF EXAMINATION:-

- The examination shall be conducted at the end of six months
- The Theory paper shall carry 50 marks and 50 marks of demonstration.
- The evaluation of the performance of the students in theory papers shall be on the Basis of Examination of 50 + **50** marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

STANDARD OF PASSING: - 20+20 marks.

6. Syllabus of Course:

Unit 1: Introduction to Plant Nursery

- 1.1: Definition, scope of Plant Nursery. (2)
- 1.2: Types of Plant Nursery: Wild Plants, Ornamental Plants.3)

Unit 2: Methods of Propagation of Plants (12)

- 2.1: Vegetative and reproductive (by seeds).
- 2.1.1: Vegetative – By Leaf, Stem, Roots, and their modified parts.
- 2.1.2: Reproductive- By seeds.

Unit 3: Essentials of Plant Nursery (12)

- 3.1: Land Propagation, Beds preparation.
- 3.2: Fertilizers: Inorganic, Organic & Biofertilizer.
- 3.3: Storage: Field (Open), Enclosed- Shed Net, Polyhouse.

Unit 4: Techniques of Propagation (10)

- 4.1: Budding method: Shield or ‘T’ Budding, Patch budding.

4.2: Grafting methods: Whip Grafting, Tongue Grafting, and Stone Grafting.

Practical - :

- 1) Nursery techniques – Instruments, Potting, re-potting and Bed Preparation.
- 2) Study of Garden Design and Polyhouse.
- 3) Study of Ornamental Herb.
- 4) Study of Ornamental Shrub.
- 5) Study of Ornamental Trees.
- 6) Study of Fertilizers: Inorganic, Organic & Biofertilizer
- 7) To demonstrate the technique of patch and ‘T’ Budding.
- 8) To demonstrate the technique of ‘Whip Grafting’.
- 9) To demonstrate the technique of ‘Air Layering’
- 10) Visit to Nursery.

7.Faculty involved in teaching the course:

- 1) Dr.C.R.Patil.
- 2) Dr.P.B.Kale.
- 3) Dr.V.A.Patil.
- 4) Miss.M.Y.Shinde
- 5) Miss.P.U.Wadkar.

Medicinal Plants

Run By

Department of Botany

The term medicinal plants include various types of plants used in herbalism (Herbology or herbal medicine) it is use of plants for medicinal purposes and study of such uses.

As we know literally the Sanskrit meaning of Ayurveda is the knowledge of science of ayurveda It is based on the system of natural Philosophy. Plants have been used for medicinal purposes long before prehistoric period ancient unani manuscript. Evidence exist that unani Hakims, Indian Vaidas and European and Mediterranean Cultures were using herbs for over 4000 year as medicines. Major turnover of medicine used worldwide that belongs to only Ayurveda (WHO).

India is a store house of medicinal plants out of which 443 have been recorded in Maharashtra and more than 7000 plants recorded medicinally important in India. The Department of Indian traditional Medicine in the Ministry of Health of government of India have developed approved formularies of Ayurveda Siddha and Unani System of medicine.

Therefore college management decided to start **certificate course in Post graduate Students**

A certificate course in Medicinal plant is started for Post graduate students to –

- A. To develop self confidence and skill for employment or for Job opportunities.
- B. To aware the society for using different medicinal plants.
- C. The documentation of medicinal plants in the form of Herbarium form.

1. Duration of course: 6 months

2. Eligibility for admission: Graduation science passed

3. Intake capacity: 20 students

4. Fee structure: Total Fee: 510/- Rs per student

5. Exam structure and Passing Criteria:

SCHEME OF EXAMINATION:-

- The examination shall be conducted at the end of six months
The Theory paper shall carry 50 marks and 50 marks of demonstration.
- The evaluation of the performance of the students in theory papers shall be on the Basis of Examination of 50 + **50** marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

STANDARD OF PASSING: - 20+20 marks.

6. Syllabus of Course:

Unit 1: Introduction to Medicinal Plants. (02)

1.1: History, Definition, Aims and Objective of Medicinal Plants (02)

1.2: Importance and scope.

- Unit 2: Classification of medicinal plants. (04)
- 2.1: Classification based on habit. (02)
- 2.2: Classification based on Ayurvedic formulation. (02)
- Unit 3: Methods of Propagation of Plants (18)
- 3.1: Vegetative and reproductive (by Seeds). (02)
- 3.1.1: Vegetative – By Leaf, Stem, Roots, and their modified parts. (02)
- 3.1.2: Reproductive- By seeds. (02)
- 3.1.3: Cultivation methods: Land / soil seedling propagation
Planting method: Fertilizers, harvesting. (03)
- 3.1.4 Important group of ingredients /Active principles in medicinal plants. (06)
- Unit 4: Study of some important medicinal plant. (14)
- 4.1: Morphology, Botanical name, sources and medicinal uses of herbaceous and Shrub medicinal plants. 1.Androgrphis paniculata ,2.Agavae americana, 3.Ocimum tenuiflorum, 4.Calotrophis gigiantea, 5.Santalum album, 6.Barleria prionitis, 7.Spilanthus paniculata, 8.Butea monosperma , 9.Clerodendrum serratum ,10.Plumbago zeylanica.
- 4.2: Morphology, Botanical name, sources and medicinal uses of arboreal (Trees) Medicinal plants. 1. Holigana grahamai, 2.Antiaris toxilcria, 3.Aphannostachys rohitaka, 4.Nothapodytes nimmoniana, 5.Azadirachta indica, 6.Cassia fistula, 7.Terminalia arjuna , 8.Mangifera indica, 9.Butea monosperma 10.Mimusops elengii

Practical Syllabus- :

- 1) Study of Instruments and field preparation.
- 2) Study of Propagation Methods by Seeds.
- 3) Study of Propagation by vegetative Methods.
- 4) Study of Fertilizers: Inorganic, Organic & Biofertilizer
- 5) Study of following medicinal plants (Herbs and Shrubs).

i. *Androgrphis paniculata*, ii. *Agavae americana* iii. *Ocimum tenuiflorum*, iv. *Calotophis gigiantea*, v. *Santalum album*, vi. *Barleria prionitis*, vii. *Spilanthus paniculata*, viii. *Butea mono sperma*, ix. *Clerodendrum serratum* x. *Plumbago zeylanica*.

- 6) To. Study of following medicinal plants (Trees)

i. *Holigana grahamai*, ii. *Antiaris toxilcra* iii. *Aphannostachys rohitaka*, iv. *Nothapodytes nimmoniana*, v. *Azadirachta ndica* vi. *Cassia fistula*, vii . *Terminalia arjuna* viii . *Mangifera indica*, ix. *Butea monosperma* x. *Mimusops elengii*

- 7) Ayurvedic Industrial visit or Medicinal plant Garden.

7. Faculty involved in teaching the course:

- 1) Dr. C. R. Patil.
- 2) Dr. P. B. Kale.
- 3) Dr. S. T. Ingle
- 4) Miss. M. Y. Shinde
- 5) Dr. S. M. Patil
- 6) Mr. Jadhav K. S.

Soil and Water Analysis
Run By
Department of Zoology

Soil and Water plays an important role in agriculture, human health and aquatic ecosystems. Presently, increasing population is responsible for pollution of soil and water. The quality of soil and water is declining day by day.

This certificate course is important because of following reasons:

- a. The course will be helpful to encourage the society in preventing soil and water pollution.
- b. Most of the students from Western Maharashtra belongs to agriculture background. This course intends to fulfill the requirement of agriculture within house and also provides solution for the society.
- c. This course gives job opportunities to the students in soil and water testing laboratories.

- 1. Duration of course:** 6 months
- 2. Eligibility for admission:** 12th passed
- 3. Intake capacity:** 30 students
- 4. Fee structure: Total Fee:** 200/- Rs per student
- 5. Exam structure and Passing Criteria:**

6. Syllabus of Course:-

Unit 1: Introduction to Soil

- 1.1: Definition, Importance of soil analysis in Agriculture. (1)
- 1.2: Origin and formation of soil. (1)
- 1.3: Properties of Soil (4)
 - a. Physical Properties
 - b. Chemical Properties

Unit2: Classification of Soil and Soil types in India (2)

Unit 3: Soil Fertility Factors and Maintenance of soil fertility in relation to Agriculture. (2)

Unit 4: Introduction to Water (9)

- 4.1: Definition, Importance of water analysis in relation to agriculture, human health and aquatic organisms.
- 4.2: Properties of Water
 - a. Physical Properties
 - b. Chemical Properties

Unit 5: Classification of Water (5)

- a. Marine Water
- b. Fresh Water
- c. Brackish Water
- d. Ice

Unit 6: Quality of Natural water and Polluted water with respect to its impact on Agriculture, Domestic use and on aquatic organisms. (4)

Unit 7: Methods of Soil testing and Water Analysis (12)

Practical syllabus - :

I. Soil analysis:

- 1) Collection and preservation
- 2) Analysis of particle size.
- 3) Water holding capacity.
- 4) Temperature.
- 5) pH.
- 6) Alkalinity
- 7) Chlorides.
- 8) Sulphates.
- 9) Organic matter
- 10) Boron.

I. water analysis:

- 1) PH
- 2) Temperature.
- 3) Total Soilds (TS).
- 4) Total Dissolved Solids (TDS).
- 5) Total Suspended Solids (TSS).
- 6) Dissolved Oxygen.
- 7) Free Carbon di-oxide.
- 8) Total Alkalinity.
- 9) Hardness.
- 10) Chlorides.
- 11) Residual Chlorine.
- 12) Hydrogen Sulphide.
- 13) MPN of Coliforms.

7. Faculty involved in teaching the course:

- 1) Dr. Hujare M. S. (Principal)
- 2) Dr. Pujari P.P. (HOD)
- 3) Dr. Khabade S.A.
- 4) Dr. Waghmare P.K.
- 5) Dr. Sheikh N.H.
- 6) Mrs. Nadaf S. M.

TOURISM DEVELOPMENT

Run By

Department of Geography

- The tourism development course is a short term course at B.A. level which is basic branch of Economic Geography.
- In this course the fundamental and basic knowledge of tourism industry and its impact on employment have been included
- The present syllabus of this course includes tourism nature, scope, significance, factors of tourism development, tourism marketing with cooperation of local people.
- With this study students can understand present status of tourism in India and also facing the problems for the development of tourism.
- Tourism is an important, even vital, source of income for many regions and countries.
- It also creates opportunities for [employment](#) in the [service sector of the economy](#) associated with tourism

- 1. Duration of course:** 3 Months
- 2. Eligibility for admission:** 12th Pass (any faculty)
- 3. Intake capacity:** Minimum 20, Maximum 100

- 4. Fee structure:** Admission Fee: 10/-
 Tuition Fee: 80/-
 Exam Fee: 10/-
Total Fee: 100/-

5. Exam structure and Passing Criteria:

Sr. No.	Course Name	Examination Scheme (Marks)		
		Theory	Project	Total Marks
1	Tourism Development	50	50	100

Passing criteria minimum 40 marks

A Grade: above 70

B Grade: 50-70

C Grade: Blow 50

6. Syllabus of Course:-

Topic 1: Introduction to Tourism-

What is Tourism?, Definitions, Nature, Scope, Characteristics of Tourism, Factors of Tourism Process, Tourist: Definitions, Historical Background of Tourism, Travel & Tourism as basic needs of man, Problems of Tourism

Topic 2: Types of Tourism –

Basis of Political Border, Quantity of Tourists, Tourism Period, Seasonal Characteristics, Nature of Tourism, Location of Tourism, Purpose of Tourism, Means of Transport, Attraction of the Host Destination.

Topic 3: Tourism Planning & Tourism Marketing-

Tourism Planning: Importance and Necessity, Model of the Tourism Planning, Elements of the Tourism Planning, Planning at National-Regional-Local Level

Tourism Marketing: Meaning of the Tourism Marketing, Factors of Tourist Product, Characteristics of Marketing, Functions of the Tourism Marketing, Tourism Marketing in India.

Topic 4: Development of Tourism in India -

The Sargent Committee, Function of the Sargent Committee, Central Tourist Organization, Tourist Traffic Committee, Tourism Development after Freedom, Stages of the Development of Indian Tourism, Indian Tourism Development Corporation (ITDC), Future of Indian Tourism

References:

1. Bhatia, A.K. : Tourism Development
2. Donald, E. N. (1980): Tourism Planning & Development Issues
3. Srivastava, K. K. (1983): Tourism in India
4. Donald, E. N. (1980): Tourism Planning & Development Issues

7. Faculty involved in teaching the course:

1. Mr. Ubale G. S..
2. Mr. Gavit S. S.
3. Mr. Patil A. N.
4. Mr. Koli V. P.
5. Mr. Sondge S. S.