Criterion I
Curricular Aspects

1.3.2 Syllabus of Value Added Courses

(2018-2019)

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF BOTANY

PLANT TISSUE CULTURE

SYLLABUS

Course Outcomes
To provide self-employability skills among students in plant tissue culture

Course Content   **Total Hours: 30**

Topic	Hrs
Module 1	3 hrs

Introduction to plant tissue culture- Brief introduction to plant tissue culture, History of plant tissue culture and its importance, Cellular totipotency, In vitro differentiation, Glass goods and instruments.

Module 2	3 hrs

Aspectic techniques in culture- Sterilization, Different methods, Sterilization of laboratory (fumigation), Sterilization of instruments and glass ware, medium, explant, working principle of laminar air flow and autoclave.

Module 3	3 hrs

Tissue culture medium-Basic components of plant tissue culture medium Murashige and skoog medium, Preparation of stock solutions.

Module 4	6 hrs

Different phases of micro propagation-Selection of explant, Surface sterilization, Inoculation, Incubation, Subculturing, In vitro and in vivo root hardening, transplantation and field evaluation, Advantage and disadvantages of micro propagation, Somaclonal variation.

Practicals	15 hrs

1. Micropropagation of ornamental plants.
2. Micropropagation of endangered plant species.
3. Micropropagation and culturing of banana.

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DEPARTMENT OF BOTANY
ENTREPRENEURIAL SKILL DEVELOPMENT IN ECOFRIENDLY PRODUCT MAKING

SYLLABUS

Eco-friendly products help to maintain a friendly and healthy relationship between human beings and their surroundings. It is the responsibility of every person to take good care of his or her surrounding environment. Eco-friendly practices and products inflict no threat to the environment as these products and practices conserve and protect natural resources. They have the least negative impacts on land, water and air. Upholding this idea, the department of Botany is offering a certificate course in this aspect to cater the needs of present environmental scenario thereby ensuring a green environment in the campus. It is an excellent opportunity for the students to develop their self-employability skills as well.

Course Outcomes

- To provide self-employability skills
- To generate environment consciousness

Course Content   **Total Hours: 30**

Module		
Module I		(5 hrs)
1. Eco-friendly products – An overview, scope and significance 2. Materials commonly employed for product making – familiarizing the materials and tools required 3. Marketing value and self-employment opportunities		
Module II Hands on training on the following products: i. Bags - Paper bags, Cloth bags, Vanity bags ii. Files – Paper files, Jute Files iii. Pen making – Paper Pens iv. Pouches – Cloth pouches v. Pen Stand – Soft wood vi. Mats – Cloth mats vii. Envelopes – Official envelopes and covers using paper viii. Wall decorates – using different materials ix. Ornaments – earrings, necklace, bangles using terracotta and Paper x. Flower vase and flowers		(25 hrs)

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF CHEMISTRY
PRACTICAL METHODS IN FOOD ANALYSIS
SYLLABUS

Duration: 40hrs

Course Outcomes

CO1: Acquire knowledge about food sampling techniques
CO2: Understand components of food
CO3: Describe food quality parameters and their analysis
CO4: Built knowledge on food laws and regulations in India
CO5: Understand food adulteration

Course Content

Unit 1: SAMPLING TECHNIQUES AND PROXIMATE ANALYSIS (6hrs)
Preparation of samples - dry food sample, moist solid foods. Enzyme inactivation, Storage and preservation
Proximate Analysis: Moisture and total solids-different methods, ash, Crude protein, Crude fat, crude fibre, Nitrogen free extract

Unit 2: PROXIMATE ANALYSIS OF MAJOR COMPONENTS IN FOOD I (7hr)
Carbohydrates
Sugars -reducing and non-reducing sugar, sucrose. Starch- Amylose, water soluble amylose.
Fibers-Acid detergent fibre, neutral detergent fibre, Total dietary fibre, pectin
Protein- True protein, non protein Nitrogen, Free amino Nitrogen
Fat- Acid value, Fatty acid in fats and oils using GLC, iodine value, Saponification value, Rancidity of fat and oil

Unit 3: PROXIMATE ANALYSIS OF MAJOR COMPONENTS IN FOOD II (6hrs)
Minerals
Preparation of sample solution, Estimation of Trace elements by AAS ((Fe,Cu,Mn,Mg,Zn,K,Na,Ca)
Calcium, Phosphorous, Fluorine, Iodine, Lead
Vitamins- Vitamin A, Ascorbic Acid, Thiamine, Riboflavin

Unit 4: FOOD QUALITY (7hrs)
Quality Parameters-pH, Titrable acidity, Non-enzymatic browning, water activity, sulphur dioxide, Benzoic acid
Quality Analysis-Flour, Honey, milk and milk products, meat and meat products, Bevarages

Unit 5: FOOD LAWS AND REGULATION IN INDIA (6hrs)
Laws governing food industry, need for new act, key regulations of FSSA, Requirements and benefits of food grades and standard- BIS, AGMARK, ISI, FPO, CAC

Unit 6: PRACTICAL METHODS (8hr)
Detection of adulteration in food products-pulses, spices, honey, milk, oil, Tea and coffee, sweets
Determination of Saponification value of oil and Fat

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Assessment Period (2016 – 2021)

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF CHEMISTRY
EVERY DAY CHEMISTRY: A PRACTICAL APPROACH
SYLLABUS

Course Outcomes

CO1: Understand different parameters of soaps

CO2: Understand advantages and disadvantages of soaps and detergents

CO3: Enable the students to develop preparation skills

CO4: Recognize the composition and health effects of cosmetics

Course Content

Duration: 40 hrs

UNIT 1: SOAP   7 hrs

Surfactants- alkaline hydrolysis of fats and oils- saponification of lipids- Analysis of fats and oils-Saponification value- Iodine value- determination of saponification value and iodine value- Manufacture of soaps- Kettle Process-Hydrolyser process- alkali content – TFM- cleansing action of soaps – practicals (production of soap)

UNIT 2: TRANSPARENT SOAP P   2 hrs

Transparent soap formulations and methods of preparations- Importance of glycerin content-advantages and disadvantages of soaps- practicals (production of transparent soap)

UNIT 3: DETERGENT   5 hrs

Detergent- Classification of detergent and examples- Advantages and disadvantages of detergents- Environmental impacts –Tooth paste – composition of tooth paste- health effects- practicals (production of detergent).

UNIT 4: HAND WASH AND DISH WASH LIQUID   6 hrs

Contents of hand wash and dish wash liquid – Role of each component – practicals (production of hand wash and dish wash liquid)

UNIT 5: DISINFECTANTS   7 hrs

Disinfectants- difference between antiseptics and disinfectants- practicals (Toilet cleaner, Floor cleaner, phenolic cleaner)

UNIT 6: COSMETICS   8 hrs

Cosmetics-Cold creams, vanishing creams and bleach creams- shampoos- ingredients and functions- different kinds of shampoos(anti dandruff, anti-lice, herbal and baby shampoos) – Composition and health effects of talcum powder and tooth paste- Hair dyes- composition of hair dyes-Perfumes- composition and health effects- Deodorants- composition and health effects-Harmful effects of cosmetics

UNIT 7: PAIN BALM   3 hrs

Analgesics- history of pain balms- medical uses- practicals

EXHIBITION AND SALE OF PRODUCTS   2 hrs

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DEPARTMENT OF COMPUTER SCIENCE
MULTIMEDIA COMMUNICATION
SYLLABUS

Course Outcomes:

1. Digitize and manipulate analog data
2. Enhance and manipulate images
3. Create your own short movies, edit the existing ones.

Course Content   **Duration: 1 year**

Module I

Microsoft Power Point: Presentations, Creating, Manipulating& Enhancing Slides, Organizational Charts, Charts, Word Art, layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In Built Sound Effect.

Module II

Adobe Photoshop: Image editing, Tools, Layers, Channels, Masks, Filters etc.

Module III

Sound Forge : Editing audio files, **Format Factory**: editing audio and video files and conversion from one format to another.

Module IV

Chromakey: video editing, **Movie Maker:** video editing, **Adobe Premier:** video editing

Module V

A case study

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF COMPUTER SCIENCE
PYTHON FOR DATA SCIENCE
SYLLABUS

Course Outcomes:

- Understand various statements, data types and functions in Python
- Develop programs in Python programming language
- Understand the packages in Python for Data Science

Course Content   **duration: 1 year**

Module I: Introduction, Features of Python. The Basics- Literal, Constants, Numbers, Strings, Identifier, Naming, Data Types, Objects, Output. Operators and Expressions - Operators, Operator Precedence, Order of Evaluation, Associativity, Using Expressions. Control Flow- Decision making –if, if …else ,if…elif else. Loops- while, for, break, continue statements.
Module II: Functions – Definition, parameters, local and global variables, default arguments, keyword arguments, return statement, Recursive functions, Lamda functions. Modules-built in modules, creating modules, import statement, Namespaces and scope, dir(), reload() functions. File Handling-opening a file, writing to a file, closing a file, file renaming, deleting a file. Directories of Python-methods mkdir(), chdir(), getcwd(), rmdir().
Module III: Data structures-Introduction, List, storing many different data points under a single name. create, subset and manipulate Lists in all sorts of ways. Tuple, Dictionary, Sequences. Quick introduction to Objects and Classes-creating objects, init() method, Oops principles- encapsulation, data hiding, Inheritance, method overriding, polymorphism. Exception Handling-try….except, try…finally, raising an exception, user defined exception.
Module IV: Numpy –Introduction, NumPy Essentials-The NumPy array, Indexing, functions and operators, type codes, scalars, vectors, slices, N-dimensional array operations and manipulations, Memory mapped files, writing superfast code with Numerical Python, using NumPy to store and do calculations with huge amounts of data. Randomization, Gnuplot, Curve Fitting, Structured Grids, Tools.
Module V: Control flow and Pandas – Pandas Data Frame, Exploring Data with Pandas, data cleaning and processing -Data manipulation with Pandas, reading data into Data Frame structures, querying these structures, merge Data Frames, generate summary tables, group data into logical pieces, and manipulate dates. Scaling of data, issues related with creating metrics for data analysis. Statistical analysis with Pandas, Time series analysis with Pandas.

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF HOME SCIENCE
BASICS OF FASHION DESIGNING
SYLLABUS

Course Outcomes
- Develop creative designs in embroidery and design garments by using this embroidery.
- Develop basic understanding of Textile fibers and basics of Fashion designing

Career objectives
- Develop creative designs in embroidery and design garments by using this embroidery.
- Develop basic understanding of Textile fibers and basics of Fashion designing

Course Content: **Duration: 50 hrs**

1. Textile fibers
   Textile fibers and their classification, Natural, Manmade fibers and their properties
2. Colouring
   Color theory, Prang color wheel, Color harmony, color types, color schemes.
3. Hand Embroidery
   Embroidery tools, types of embroidery threads & their classification, various hand stitches
4. Knitting
   Basic knit stitches

Practicals

I. BASIC HAND STITCHES
   a. Flat Stitches
      1. Running stitch
      2. Back stitch
      3. Stem stitch
      4. Satin stitch
      5. Herring bone stitch
   b. Loop stitches
      1. Chain stitch
      2. Lazy dazy stitch
      3. Button hole stitch
      4. Blanket stitch
      5. Feather stitch
   c. Knotted stitches
      1. French knot
      2. Double knot
      3. Bullion knot
   d. Combination stitches
      1. Lazy daisy, Stem, French knot, Bullion knot
      2. Satin, Chain, Button hole.

II. Garment construction
   Drafting & construction of Salwar, Kameez.

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF HOME SCIENCE
FASHION CHOREOGRAPHY AND STYLING
SYLLABUS

Course Outcomes
- Develop understanding in principles, elements of designs and fashion drawing
- Develop practical knowledge in self-grooming and makeup
- Develop skills in modelling and ramp walk

COURSE SYLLABUS: **Duration: 1 year**

- **Introduction to Fashion design**
- Basic Design:
1. Formation
2. Color theory
- **Design principles:**
1. Proportion
2. Rhythm
3. Harmony
4. Balance
5. Emphasis
- **Drawing**
1. Basics of sketching
2. Pencil rendering
3. Pen rendering
- **Painting**
1. Basics of Painting
2. Color mixing techniques
- **Introduction to garment design**
1. History of garments
2. Developing garment designs
3. Styles of garments
4. Fabric selection
- **Modeling and Ramp walk Lessons and Runway Trainings:**
1. Walking like a professional model
2. Choreographed routines, model turns and perfecting the model walk
3. How to prepare for a career as a professional model
4. How to prepare portfolion and composite cards.
5. Do's and don'ts of modeling
6. Latest and most useful modeling tips
7. Finishing Classes (Practical Make-up/Beauty Sessions)
8. Department, Posture and Body Language
9. Fashion and Wardrobe Personal Grooming
10. Overcoming performance Anxiety
11. Speech Enhancement
12. Communication Skill
13. Hair Care and Styling
14. Health and Emotional Well-Being

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF HOME SCIENCE

ARTS AND CRAFTS

SYLLABUS

Course Outcomes
- Understand the principles, elements and types of designs
- Develop practical skills in embroidery stiches and flower making

Course Content   **Duration: 1 year**

UNIT 1: Design Types of design Structural design Requirements for a good structural design Stylized Designs Geometric designs Abstract design
UNIT 2: Element of design Line. Form and shape Form and shape Texture: Pattern
UNIT 3 Colour Secondary Hues Primary Hues Tertiary Hues: Warm and cool colours.
UNIT 4 **Principles of Design** Balance: Emphasis: Rhythm: Harmony
UNIT 5 Embroidery stitches- running, back, chain, button hole, lazy daisy, blanket satin, long and short. fly feather, overcasting
UNIT 6 Different types of flower making.

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Assessment Period (2016 – 2021)

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF MATHEMATICS
MATHEMATIC SKILL DEVELOPMENT PROGRAMME
SYLLABUS

Course Outcomes   **Total Hours: 30**

- To develop mathematical and reasoning skills
- To excel in competitive exams

Course Content

Module I (8hrs)

➤ Combined operators and square roots

➤ Percentage

➤ Mensuration

Module II (8hrs)

➤ Progression

➤ H.C.F and L.C.M

➤ Factors and prime numbers

Module III (8hrs)

➤ Time and Distance

➤ Time and work

➤ Average

Module IV (6hrs)

➤ Simple and Compound Interest

➤ Profit and Loss

➤ Ratio and Proportion

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DEPARTMENT OF PHYSICS
OBSERVATIONAL ASTRONOMY
SYLLABUS

COURSE OUTCOME

- To impart a scientific understanding on astronomy
- To acquire an ability to distinguish astronomy from astrology
- To be aware of astronomical instruments
- To gain practice wisdom through night sky watch sessions

SYLLABUS (30 hours)

Module I: Overview of Astronomy (8 hours)

Origins of astronomy, night sky, celestial sphere, Constellation, zodiac constellation, magnitudes - apparent, absolute, bolometric, radiometric magnitudes, colour, solar system, planets and their satellites, minor bodies in the solar system: asteroids, Kuiper Belt, comets, Earth's motion, Moon and its motion

Module II: Galaxies (6 hours)

Visual structure, formation of spiral arms, star formation in arms, The galactic center, nebulae, Stellar populations in galaxies; Galax distances, age universe, Hubble expansion, Big Bang, stars and their evolutionary tracks, mass gain and mass loss, end states of stars: red giant, ABG stars, white dwarfs, high mass stars, neutron stars

Module III: Sun (5 hours)

Structure and appearance of the sun, composition, limb darkening, granulation, faculae, convection cells, sunspots, solar chromosphere and corona, sun's magnetic field, Sun-Earth interactions on satellites and weather phenomena

Module IV: Spatial Orbit and Instrumentation (5 hours)

Interplanetary orbit, Hohmann transfer orbit, geosynchronous orbit, geo-stationary orbit, polar orbit, walking orbit, sun-synchronous orbit, space-craft specification, astronomical telescopes, physical limits of telescopes, types of astronomical instruments

Module V: Measurement of time in Early Astronomy (6 hours)

Solar and moon calendar, identify time, season and age, birth star, origin and expansion of astrology, planets used and its belief, Astronomy and Astrology, Astrology as pseudo-science

Astronomy Practical

1. Finding the latitude of a place by noting the altitude of the pole star
2. Suns declination
3. Measurement of the Solar angular diameter
4. Number of Sun spots and observing the phenomenon of Solar limb darkening by means of a photocell
5. Scintillation of the Stars
6. Identification of constellations, ecliptic, equinox, and some prominent stars using star chart
7. Telescope alignments and various mountings, measurements of magnitudes of stars

Mode of Evaluation:

The mode of evaluation towards attaining a certificate shall be based on continuous assessment which includes:

Assignments - 1 (written), 1 (practical)

Assessments - 1 (descriptive), 1 (objective)

Reference Books

1. Astronomy-Andrew Fraknoi, David Morrison and Sidney C. Wolff-OpenStax, Rice University
2. Philip's Astronomy Encyclopedia-Patrick Moore-Octopus Publishing Group 2002
3. Astronomy - Principles and Practice - A. Roy, D. Clarke- Institute of Physics Publishing

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DEPARTMENT OF PHYSICS

EMPLOYABILITY SKILL ENHANCEMENT PROGRAMME

SYLLABUS

Course Outcomes

- To create awareness on topics career and higher education prospects
- To develop communication skills
- To impart knowledge on current affairs
- To provide interview orientation

Total: 30 hrs

Program structure:

Career and higher study options for Physics graduates	: 2 hours
Communication skills in English	: 3 hours
Verbal ability for Competitive Tests	: 4 hrs
GK	: 4 hours
Quantitative aptitude	: 9 hours
Logical aptitude and Reasoning	: 5 hours
Interview and GD Training	: 3 hours

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF STATISTICS

CERTIFICATE COURSE - STATISTICAL COMPUTING AND DATA ANALYSIS

SYLLABUS

CURRICULAM /SYLLABI FOR CARRIER ORIENTED ADD ON COURESES

Name of the Course : Advanced Diploma In Statistical Computing and
   Data Analysis

Name of the College : Vimala College, Thrissur-9

Credit Allocation :

1.CERTIFICATE COURSE

1st batch Rs: 800/— / 2nd batch Rs 1,000/—

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-1	10	15
		Module -2-Unit 1	5	
B	Practical	Module 1	5	5
		Grand total of credits		20

2.DIPLOMA COURSE

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-2	10	15
		Module -2-Unit 2	5	
B	Practical	Module 2	5	5
		Grand total of credits		20

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Significance of the course

In modern times, statistics is viewed not as a mere device for collecting numerical data but as a means of developing sound techniques for their handling and analysis and drawing valid inferences from them. It is hardly possible to enumerate even a single phase of human activity where statistics does not creep in. It has rather become indispensable in all phases of human endeavor. The ability to use statistical methods and tools become a crucial skill for the success of such efforts. For business managers and practicing researchers, many times, it becomes difficult to solve the real life problems involving statistical methods using software packages. Such people face difficulties in either carrying out the analysis using computers. A statistician can handle such situations very easily. The objective of this course is to equip the students with data analysis using commonly used software packages.

Objectives

- To equip the students to have self employment in the field of statistics.
- Analysis of data using Statistical Packages.
- Solving problems easily using Computers.
- Training students in the application of Statistical Techniques.
- Developing skills and competency among the students.
- Empowerment of the women.

Job Opportunities

- In IT industry
- In pharmaceutical companies
- Self Employment among women
- Help Research
- Statistical Consultancy
- Insurance & Actuarial Science

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3. ADVANCED DIPLOMA COURSE

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-3	5	10
		Module -2-Unit 3	5	
B	Project/Field work Training		10	10
		Grand total of credits		20

4. Detailed Syllabus:

A). Theory

Module 1 : Basic Statistical Methods and tabulation

Unit 1. Collection of data, classification, graphs and diagrams, measures of central tendency and dispersion. Correlation and regression: Karl Pearson's and rank correlation coefficients.

Unit 2: Probability: conditional probability, independence of events, random variables, pdf, cdf. Probability distributions: Binomial, Poisson and Normal.

Unit 3: Estimation of parameters: Point estimation and interval estimation, Tests of hypothesis for mean, difference of means, chi-square tests, Tests of chi- square for goodness of fit and independence of attributes. Design of experiments using CRD,RBD, LSD.

Module 2: Data Analysis using software packages:

Unit 1: Fundamentals of computers, Elements of MS-EXCEL. Creation of worksheets, Editing, formatting, and saving. Data analysis using Excel-graphs and diagrams, summary statistics, correlation, regression, tests of hypothesis and Internet.

Unit2. Data analysis using SPSS- creation of data file, editing, saving, summary statistics, two-way tables, correlation, tests of hypothesis.

Unit3.Introduction to SAS. Minitab, MATLAB, Mathematica, Maple, MATHCAD

B) Practical

Module 1: Practical problems of Module I to be done with the help of personal computers.

Module 2: Practical problems of Module II to be done with the help of personal computers.

6. Scheme of evaluation:

There will be 2 papers, 1 each for theory and practical and a comprehensive viva voce for project/ field work based on the report. Total marks for each module is 100. Grading can be done in the following way.

Range of marks for Each paper	Grade	Weightage (W)
90% and above	Outstanding (A+)	10
80-90	Excellent (A)	9
70-80	Very Good (B)	8
60-70	Good(G)	7
50-60	Satisfactory(D)	6
Below 50%	Failed (F)	0

Overall performance at the end of the course shall be indicated by Grade Point Average (GPA). It is calculated as follows:

GPA=$(W_1C_1 + W_2C_2 + \ldots)$ divided by $(C_1+C_2+C_3+\ldots)$ W_1 refers to the grade weightage obtained for each paper and C_1 refers to the credit assigned for that module.

Overall Performance

A GRADE - if GPA $\geq$ 8

B GRADE - if $7 \leq$ GPA < 8

C GRADE - if $6 \leq$ GPA < 7

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7. Justification: Certificate holders will be capable of carrying out data analysis.

8. List of recommended books.

1. Using Microsoft Office 2000 by Bott

2. Microsoft Office 2000 by Cheat Sheet, Fulton.

3. Doing data analysis with SPSS by Carver and Nash

4. V.K. Rohatgi : An introduction to Probability theory and Mathematical Statistics, Wiley Eastern.

5. Lehman E.L. Theory of point estimation.

6. Lehman E.L. Testing of Statistical Hypothesis.

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF STATISTICS
DIPLOMA COURSE -STATISTICAL COMPUTING AND DATA ANALYSIS
SYLLABUS

CURRICULAM /SYLLABI FOR CARRIER ORIENTED ADD ON COURESES

Name of the Course : Advanced Diploma In Statistical Computing and
Data Analysis

Name of the College : Vimala College, Thrissur-9

Credit Allocation :

1st batch IInd batch.

1.CERTIFICATE COURSE   Rs: 800 |—   /   Rs 1,000 /— .

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-1	10	15
		Module -2-Unit 1	5	
B	Practical	Module 1	5	5
		Grand total of credits		20

2.DIPLOMA COURSE

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-2	10	15
		Module -2-Unit 2	5	
B	Practical	Module 2	5	5
		Grand total of credits		20

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Significance of the course

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Objectives

- To equip the students to have self employment in the field of statistics.
- Analysis of data using Statistical Packages.
- Solving problems easily using Computers.
- Training students in the application of Statistical Techniques.
- Developing skills and competency among the students.
- Empowerment of the women.

Job Opportunities

- In IT industry
- In pharmaceutical companies
- Self Employment among women
- Help Research
- Statistical Consultancy
- Insurance & Actuarial Science

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3. ADVANCED DIPLOMA COURSE

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-3	5	10
		Module -2-Unit 3	5	
B	Project/Field work Training		10	10
		Grand total of credits		20

4. Detailed Syllabus:

A). Theory

Module 1 : Basic Statistical Methods and tabulation

Unit 1. Collection of data, classification, graphs and diagrams, measures of central tendency and dispersion. Correlation and regression: Karl Pearson's and rank correlation coefficients.

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Unit3.Introduction to SAS, Minitab, MATLAB, Mathematica, Maple, MATHCAD

B) Practical

Module 1: Practical problems of Module I to be done with the help of personal computers.

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Below 50%	Failed (F)	0

Overall performance at the end of the course shall be indicated by Grade Point Average (GPA). It is calculated as follows:

GPA=$(W_1C_1 + W_2C_2 + \ldots)$ divided by $(C_1+C_2+C_3+\ldots)$ W_1 refers to the grade weightage obtained for each paper and C_1 refers to the credit assigned for that module.

Overall Performance

A GRADE - if GPA ≥ 8

B GRADE — if $7 \leq GPA < 8$

C GRADE — if $6 \leq GPA < 7$

7. Justification: Certificate holders will be capable of carrying out data analysis.

8. List of recommended books.

1. Using Microsoft Office 2000 by Bott

2. Microsoft Office 2000 by Cheat Sheet, Fulton.

3. Doing data analysis with SPSS by Carver and Nash

4. V.K. Rohatgi : An introduction to Probability theory and Mathematical Statistics, Wiley Eastern.

5. Lehman E.L. Theory of point estimation.

6. Lehman E.L. Testing of Statistical Hypothesis.

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF STATISTICS
ADVANCED DIPLOMA COURSE-STATISTICAL COMPUTING AND DATA ANALYSIS
SYLLABUS

CURRICULAM /SYLLABI FOR CARRIER ORIENTED ADD ON COURESES

Name of the Course : Advanced Diploma In Statistical Computing and
          Data Analysis

Name of the College : Vimala College, Thrissur-9

Credit Allocation :

1.CERTIFICATE COURSE

1st batch $2^{nd}, 3^{rd}$ batch.
Rs: 800/–   /   Rs 1,000/– .

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-1	10	15
		Module -2-Unit 1	5	
B	Practical	Module 1	5	5
		Grand total of credits		20

2.DIPLOMA COURSE

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-2	10	15
		Module -2-Unit 2	5	
B	Practical	Module 2	5	5
		Grand total of credits		20

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Significance of the course

In modern times, statistics is viewed not as a mere device for collecting numerical data but as a means of developing sound techniques for their handling and analysis and drawing valid inferences from them. It is hardly possible to enumerate even a single phase of human activity where statistics does not creep in. It has rather become indispensable in all phases of human endeavor. The ability to use statistical methods and tools become a crucial skill for the success of such efforts. For business managers and practicing researchers, many times, it becomes difficult to solve the real life problems involving statistical methods using software packages. Such people face difficulties in either carrying out the analysis using computers. A statistician can handle such situations very easily. The objective of this course is to equip the students with data analysis using commonly used software packages.

Objectives

- To equip the students to have self employment in the field of statistics.
- Analysis of data using Statistical Packages.
- Solving problems easily using Computers.
- Training students in the application of Statistical Techniques.
- Developing skills and competency among the students.
- Empowerment of the women.

Job Opportunities

- In IT industry
- In pharmaceutical companies
- Self Employment among women
- Help Research
- Statistical Consultancy
- Insurance & Actuarial Science

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3. ADVANCED DIPLOMA COURSE

	ITEM	Module	Credit per module	Total credits
A	Theory	Module 1 –Unit-3	5	10
		Module -2-Unit 3	5	
B	Project/Field work Training		10	10
		Grand total of credits		20

4. Detailed Syllabus:

A). Theory

Module 1 : Basic Statistical Methods and tabulation

Unit 1. Collection of data, classification, graphs and diagrams, measures of central tendency and dispersion. Correlation and regression: Karl Pearson's and rank correlation coefficients.

Unit 2: Probability: conditional probability, independence of events, random variables, pdf, cdf. Probability distributions: Binomial, Poisson and Normal.

Unit 3: Estimation of parameters: Point estimation and interval estimation, Tests of hypothesis for mean, difference of means, chi-square tests, Tests of chi- square for goodness of fit and independence of attributes. Design of experiments using CRD.RBD. LSD.

Module 2: Data Analysis using software packages:

Unit 1: Fundamentals of computers, Elements of MS-EXCEL. Creation of worksheets. Editing, formatting, and saving. Data analysis using Excel-graphs and diagrams, summary statistics, correlation, regression, tests of hypothesis and Internet.

Unit2. Data analysis using SPSS- creation of data file, editing, saving, summary statistics, two-way tables, correlation, tests of hypothesis.

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Assessment Period (2016 – 2021)

Unit3.Introduction to SAS, Minitab, MATLAB, Mathematica, Maple, MATHCAD

B) Practical

Module 1: Practical problems of Module I to be done with the help of personal computers.

Module 2: Practical problems of Module II to be done with the help of personal computers.

6. Scheme of evaluation:

There will be 2 papers, 1 each for theory and practical and a comprehensive viva voce for project/ field work based on the report. Total marks for each module is 100. Grading can be done in the following way.

Range of marks for Each paper	Grade	Weightage (W)
90%and above	Outstanding (A+)	10
80-90	Excellent (A)	9
70-80	Very Good (B)	8
60-70	Good(G)	7
50-60	Satisfactory(D)	6
Below 50%	Failed (F)	0

Overall performance at the end of the course shall be indicated by Grade Point Average (GPA). It is calculated as follows:

GPA=(W₁C₁+ W₂C₂ +.......) divided by (C₁+C₂+C₃+......) W_i refers to the grade weightage obtained for each paper and C_i refers to the credit assigned for that module.

Overall Performance

A GRADE - if GPA ≥ 8

B GRADE - if 7 ≤ GPA< 8

C GRADE. - if 6 ≤ GPA< 7

7. Justification: Certificate holders will be capable of carrying out data analysis.

8. List of recommended books.

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4. V.K. Rohatgi : An introduction to Probability theory and Mathematical Statistics, Wiley Eastern.

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6. Lehman E.L., Testing of Statistical Hypothesis.

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF STATISTICS
ADVANCED COURSE IN C++ AND PYTHON
SYLLABUS

Number of Hours: 40

Course Objectives
1. To develop the ability of programming skills in students.
2. To train the student to the basic concepts of the C++ and Python programming languages.

Course Outcome
1. Understand the concepts of C and C++ programming.
2. Explain how an existing C++ program works.
3. To acquire programming skills in core Python.
4. Able to understand the application level of a programming language

Syllabus

Semester-I (20 Hrs)
Module 1: Basics of programming, Introduction to C programming, Variables and Data types, Operators and its application (2Hrs)

Module 2: Functions, Call by value, Call by reference, Scope, Operation using functions (6 Hrs)

Module 3: Pointers, Structure, Operations using Structure, Unions (6 Hrs)

Module 4: File management using c, Types of file and operations in files, Basics of C++, OOP concept, Polymorphism (6 Hrs)

Semester –II (20 Hrs)
Module 1: Introduction to python, Introduction to variables & data types, Operators in python, Programming concept (2 Hrs)

Module 2: Functions in python, Module, Exception Handling (4 Hrs)

Module 3: Introduction to file handling, File Operation modes, File Operations in different modes (2 Hrs)

Module 4: Introduction to MySQL and Apache server, Different databases, Introduction to MySQL queries, MySQL handling using python (4 Hrs)

Module 5: Introduction to Machine Learning, Machine learning tools, Numpy, Pandas, MatPlot, Examples (6 Hrs)

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Module 6: Live hands on a python project (2 Hrs)

Reference

1. Programming in ANSI C 6th Edition by E. Balaguruswamy
2. *The C Book*, second edition by Mike Banahan, Declan Brady and Mark Doran, originally published by Addison Wesley in 1991. This version is made freely available.
3. Jones, Derek M. *The New C Standard: A Cultural and Economic Commentary*. Addison-Wesley. ISBN 0-201-70917-1.
4. The GNU C Library -- a manual for the GNU C library, which defines all of the library functions specified by the ISO C standard, and other functions
5. Guttag, John V. (12 August 2016). Introduction to Computation and Programming Using Python: With Application to Understanding Data.
6. *"Python 3.8.4"*. *13 July 2020. Retrieved 14 July 2020.*
7. van Rossum, Guido (1993). "An Introduction to Python for UNIX/C Programmers". *Proceedings of the NLUUG Najaarsconferentie (Dutch UNIX Users Group)*. CiteSeerX 10.1.1.38.2023. even though the design of C is far from ideal, its influence on Python is considerable.

DEPARTMENT OF ZOOLOGY
FABRIC PAINTING AND SAREE DESIGNING
SYLLABUS

Course Outcomes

- To enhance the self-employment through the skill development through the skill development in fabric painting and saree designing

- To develop the aesthetic sense in students

- To understand the recent trends in the field of fabric painting and saree designing

Course Content   **Duration: 40 hrs**

Fabric painting Freehand painting Dot painting Container painting Block painting Wet painting Finger painting Tie-dye with fabric paint One stroke painting
Saree design Hand painting Free hand painting Saree double fabric painting Chain stitch, Knotted stitch French knots Lazy daisy stitch Mirror works Sequence work Bead work Santoshi work

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF ZOOLOGY

HAND EMBROIDERY AND NEEDLE WORK

SYLLABUS

Duration: 40 hours

Hand embroidery is one of the easiest beautiful works of art. It can take only a few simple stitches executed with precision and flair to make a mundane item look exquisite. Embroidery may also use other materials such as metal strips, pearls, beads, quills and sequins. Those who excelled in the needle arts continued to learn, experiment, and develop new stitches, new styles and new uses for the myriad of fancy stitches available. The course helps the students to earn while learn thus making the students economically independent.

Course Outcomes

- To enhance the self-employment through the skill development in fabric painting and saree designing
- To develop the aesthetic sense in students
- To understand the recent trends in the field of Hand Embroidery and Needle Work

Course Content

Sl No	Content	Hrs
I.	Embroidery Tools and Equipment	(2 hrs)
II.	Embroidery threads and their classification, makes and availability	(2 hrs)
III.	Relation between threads, needles and cloth	(2 hrs)
IV.	Basic stitches of hand Embroidery their technique and application	(34 hrs)

Running Stitch, Long & Short Stitch, Backstitch, Satin Stitch, Split Stitch, French Knot, Stem Stitch, Chain Stitch, Cross stitch, Herringbone Stitch, Feather Stitch, Fishbone Stitch, Buttonhole Stitch, Mirror work and Applique work

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF ECONOMICS
SUSTAINABLE BANKING AND FINANCIAL INCLUSION
SYLLABUS

Duration: 6 Months (Credit Hours: 30) + Practicals: 7 days

Course Outcome

Students understand banking for profitability and its quality aspects in economic, social and environmental fronts

Course Content

Module I

Growth and Development- Social and Economic Development- Inclusive Growth: features, significance, challenges and opportunities in Indian context

Module II

Financial inclusion- definition, importance, objectives, advantages, opportunities and Challenges - Financial inclusion in India

Module III

Sustainable Development- Sustainable Development Goals - Sustainable Banking: meaning and importance - Micro finance: Meaning and importance - Joint Liability Model for Lending - Triple Bottom Line Approach for Sustainability

- Field Exposure, Case Studies and Assignments

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF ENGLISH
ASAP
SYLLABUS

Course Outcome

Students overcome their inhibitions in using the English language, and thereby improve their employability

Course Content   Duration: 1 year

Module 1:

Personal Skills

Knowing oneself-confidence building-defining strengths-thinking creatively personal values-time and stress management-language practice

Module 2:

Social skills

Appropriate and contextual use of language-nonverbal communication interpersonal skills-understanding media-public speaking-language practice

Module 3:

Organizational skills

Planning-team work-coordination

Module 4:

Professional skill

Job oriented skills-professional etiquette-business communication

Module 5:

Preparing and presenting a project

Agreeing on a theme and setting up a timeline-brainstorming-gathering information-writing good paragraphs-compiling and analyzing information revising and editing-ppt

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF MALAYALAM
HOME MAKING
SYLLABUS

1. Description of course/Course outcome

This course is designed to give basic awareness about home making.

Students get opportunity for self-efficiency and confidence for their future life.

2. Duration of the Course -50 hrs

The Course shall extend over a period of 10 months.

3. Titles and hour duration

Sl.No	Titles	Hours
1	Home making	2
2	Art and craft	5
3	Stitching and sewing	5
4	Embroidery	2
5	Cooking	3
6	Planting of vegetables and plants	6
7	Home making –practical	6
8	Interior design	6
9	Beautician course -basics	2
10	Pets care	4
11	Counseling	4
12	Visit to nurseries (vegetable gardens, orchid nurseries)	5

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SYLLABUS IN DETAIL

PAPER1 HOME MAKING

Unit 1 House keeping

Unit 2 Home maintenance

Unit 3 Interior designing

Unit 4 Household budget and shopping

Unit 5 Cooking

PAPER 2 ART AND CRAFT

Unit 1 Needle works

Unit 2 Flower making, puppet making

Unit 3Jewelry making

PAPER 3 STITCHING AND SEWING

Unit 1 Basics of stitching work

Unit 2 Embroidery – fabric painting ,shell works, glitter works

PAPER 4 BEAUTICIAN COURSE

Unit 1 Basics of make up

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DEPARTMENT OF SOCIAL WORK

BASIC SKILLS IN COUNSELLING

SYLLABUS

Course Outcomes

1. Understand basic concepts of counselling, its types, principles and process
2. Understand various mental health issues
3. Analyse the significance of different theoretical approaches in counselling.
4. Use skills and strategies in counselling process
5. Understand the various settings in which counselling can be practiced

Unit I. Counselling: An emerging profession

- Psychology, definition, concepts and significance
- Introduction to counselling, definition, scope and significance
- Goals of Counselling
- Impact of social problems among individuals
- Types of counselling: promotive, preventive, curative, and crisis counselling
- Grief counselling
- Peer counselling and its significance

Unit II. Skills and Atributes of Counsellors

- Personal Qualities and Attributes: Self awareness, Empathy, Genuineness and Warmth

- Basic skills in counselling: Active listening Questioning, Challenging

- Physical attending Skills: non verbal skills like posture facial expressions, voice and eye contact

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Unit III. Counselling Relationship, Principles and Legal and Ethical aspects

- Counselling relationship: definition, Building counselling relationship

- Principles of counselling: Acceptance, Individualisation, Non judgemental attitude, Controlled emotional involvement, Purposeful expression of feelings, Right for self direction, Confidentiality

- Ethical and legal aspects of counselling

Unit IV. Counselling Process

- Phases/stages in counselling
- Tools used in counselling: listening, observation, interviews and other tools
- Counselling techniques: supportive techniques, emotional ventilation, clarification, accreditation, reassurance, allaying guilt feelings, psychological support etc.

Unit V Mental Health and Mental Health issues

- Concept of Mental Health
- Characteristics of a mentally healthy person
- **Mental health problems**: Adolescent issues, stress, burn out, anxiety, depression, addictions, suicidal ideations, basic information regarding major and minor mental disorders

Unit VI Theoretical approaches in counselling

- Psycho analytic
- Person centered
- Transactional analysis
- Rational Emotive Approach
- Reality Therapy
- Strengths based, Motivational enhancement etc

Unit VII Counselling in different settings

- Family and Marital Counselling
- Educational settings
- Vocational and Industrial settings
- De-addiction centre
- Disaster settings
- Counselling with women

Duration of the course: The course is distributed over one year. The classes are conducted on all Mondays and Tuesdays from 2.00 to 3.00 pm. Since it is a regular contact programme attendance is compulsory.

Evaluation: A candidate enrolled for the certificate course will be evaluated on the basis of a written examination conducted by the department of Social Work at the end of the course. Candidates who have successfully completed the course will be given a Certificate in Basic Counselling skills.
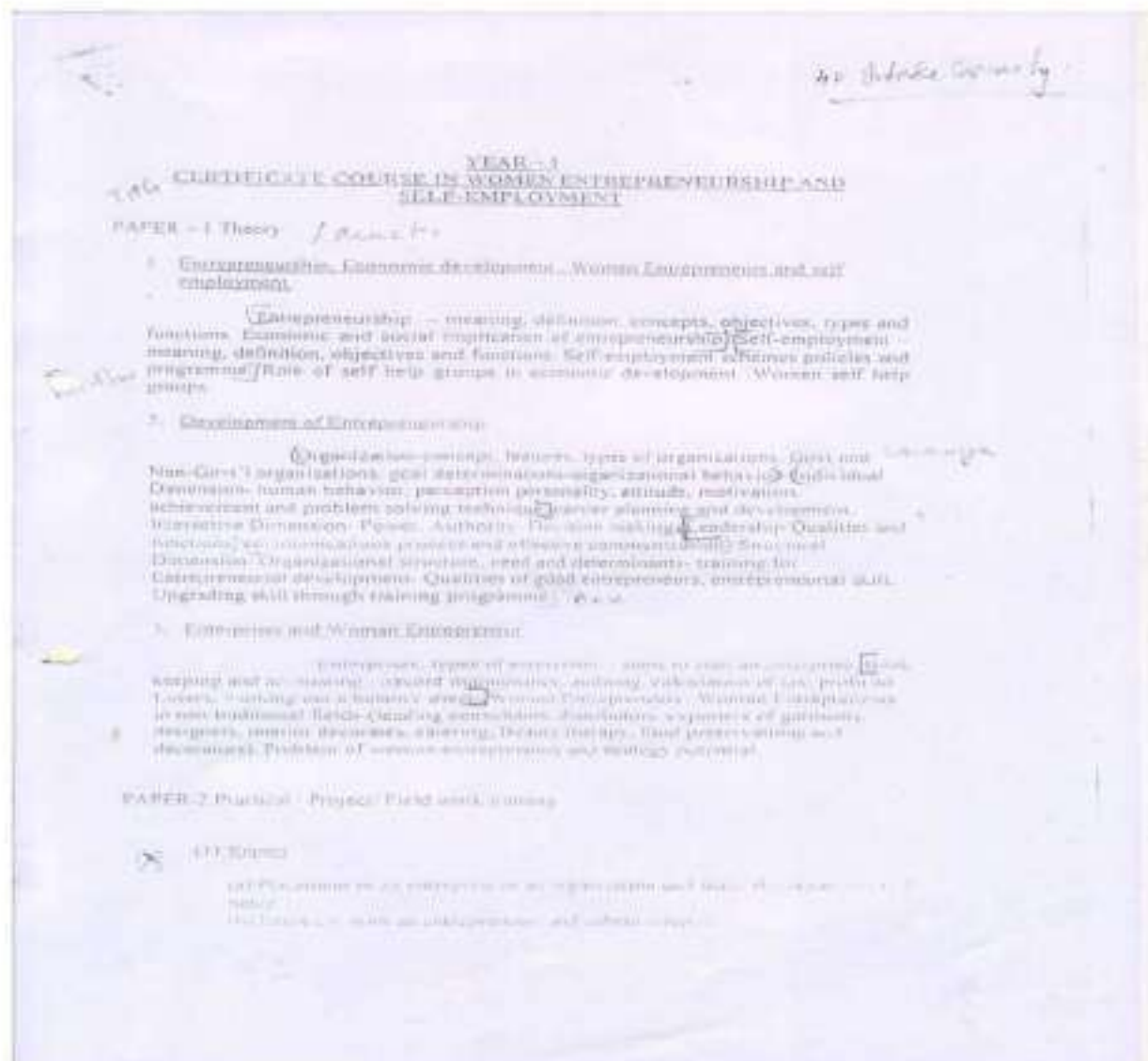
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DEPARTMENT OF SOCIOLOGY
WOMEN ENTREPRENUERSHIP AND SELF EMPLOYMENT
(UGC SPONSORED)
SYLLABUS

YEAR – I
CERTIFICATE COURSE IN WOMEN ENTREPRENEURSHIP AND
SELF-EMPLOYMENT

PAPER – I Theory

1. Entrepreneurship, Economic development, Women Entrepreneurs and self
employment

Entrepreneurship – meaning, definition, concepts, objectives, types and
functions. Economic and social implication of entrepreneurship. Self-employment –
meaning, definition, objectives and functions. Self-employment schemes policies and
programmes. Role of self help groups in economic development. Women self help
groups.

2. Development of Entrepreneurship

Organization-concept, features, types of organizations. Govt and
Non-Govt organizations, goal determinations-organizational behaviour. Individual
Dimension- human behaviour, perception personality, attitude, motivation
achievement and problem solving technique. Career planning and development.
Interactive Dimension- Power, Authority. Decision making, Leadership Qualities and
functions, communication process and effective communication. Structural
Dimension. Organisational structure, need and determinants- training for
entrepreneurial development. Qualities of good entrepreneurs, entrepreneurial skill.
Upgrading skill through training programmes.

3. Enterprises and Women Entrepreneur

Enterprises, types of enterprises – steps to start an enterprise. Book
keeping and accounting. Product management, autonomy, advantages of tax, problems
faced. Starting out a business areas. Women Entrepreneurs. Women Entrepreneurs
in non traditional fields-Candling association, dustbinforal exporters of garments,
designers, interior decorators, catering, Beauty therapy, food preservation and
decoration. Problem of women entrepreneurs and remedies. potential.

PAPER-2 Practical – Project/ Field work training

1. Project

(a) Placement in an enterprise or an organization and their observation ...
report

(b) Interaction with an entrepreneur and submit report

Assessment Period (2016 – 2021)

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DEPARTMENT OF SOCIOLOGY

ADMINISTRATION & GOVERNANCE

SYLLABUS

PREPARATORY COURSE FOR ADMINISTRATION AND GOVERNANCE

AIMS AND OBJECTIVES

To motivate women to take up challenging positions in administration and governance.

1. Moulding women for administrative services
2. To equip them with entry level examination
3. Motivate women for taking up crucial role in governance
4. Motivate women to take up politics as a position

Course Outcomes

1. Women equipped to face the entry level examination
2. To ensure women, to take up challenging roles/eminent positions in politics and administration.
3. To facilitate women in clearing civil service examinations.

Course Content   **Total Hours: 48**

Module –I Introduction	8 Hours
1.1 Administration & Governance: Meaning- definition and components 1.2 UPSC & Kerala PSC (KAS) – History and governing structure, One Time Registration and updating of profile 1.3 Exam Pattern of UPSC Examination- Different Phases-Preliminary- Main & Personality Test/Interview	
Module-II Learning Techniques	11 Hours
2.1 Preparation Techniques- Self management- time management – gaining Self confidence-methodical & hard working - honest endeavours 2.2 Writing skills in Competitive examinations – tips and techniques for enhancing answer writing skills 2.3 Learning techniques- elaborative interrogation- self-explanation,-summarization,-highlighting / underlining) -the keyword mnemonic,-imagery use for text learning-rereading,-practice testing- distributed practice- interleaved practice	

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Module –III Areas for Exam	15 Hours

3.1   Quantitative Aptitude-Computer Knowledge-General Knowledge-Reasoning-

English and Malayalam language

3.2   Kerala history and renaissance in Kerala - Geography of Kerala –

3.3   Geography of India -Indian economy-Indian constitution and Indian polity- Modern

Indian history-Social welfare legislation and programmes

Module –IV Exam Orientation	6 Hours

4.1   Motivation and Confidence

4.2   Interpersonal skills including communication skills

4.3   critical thinking

Motivational visits	8 Hours

- o   One governing body
- o   One administrative body

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF COMMERCE

DIPLOMA IN GOODS AND SERVICES TAX PRACTICE

SYLLABUS

I. **DETAILS OF COURSE:**

Course Outcome

Students will be well versed with sales tax practices and will be able to do the accounts of any business concern using tally software

Name of course   : **DGSTP**

Qualification   : **+2 & above**

Duration:

The normal duration of the course is six months. The classes will be held on all week days 3 hours per day.

Examination:

There will be examination at the end of the course. The conduct of examination, valuation, declaration of results, issue of certificates, mark lists etc. are done by RUTRONIX.

Examination Fee:

Examination fee (Regular and Supplementary) will be fixed by RUTRONIX from time to time. Candidates should remit the examination fee as and when notified.

Re-admission Rules: Students who discontinue the course after the commencement of the classes and who are not eligible to appear for the examination due to reasons like shortage of attendance etc. will be re-admitted on request as per the existing terms and conditions of RUTRONIX on condition that the candidate shall study the course and attend examination as per the scheme and syllabi of the course to which he/she is re-admitted.

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Certification:

Internal Evaluation marks are awarded based on their performance in Theory and Practical. Students who score a minimum of 40% marks in final theory examination, minimum of 50% marks in the final practical examination and 50% overall average for every subject (internal and final marks put up together) would be declared successful.

Note:

1. Scholarship will be provided to eligible female & male applicants as per norm set forth by RUTRONIX. Others are required to pay the specified course fee.

Scholarship amount shall be changed and will be communicated to ATCs and students then and there or before the admission notification of a particular batch.

2. Syllabus, Scheme of examination etc. will be changed as decided by RUTRONIX from time to time

PAPER	SUBJECT	THEORY(Hrs)	PRACTICAL(Hrs)
	Semester 1		
I	Financial Accounting	100	50
II	Direct & Indirect Tax	60	50
III	Computerised Accounting: Tally ERP-9	40	40
	Total	200	140

II. Training Schedule - DGSTP course

Paper No.	Subject	Theory hours per week	Lab hours per week	Marks		Total
				Internal	External	
Theory-I	Financial Accounting	3	2	50	100	150
Theory - II	Direct & Indirect Tax	3	2	50	100	150

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Theory-III	Computerised Accounting: Tally ERP-9	3	--	50	100	150
Lab-I.A	Tally ERP-9	--	3	50	100	150
Total		9	9	250	500	750

III. MODULE WISE SYLLABUS

IV. Detailed Syllabus

Paper 1: Financial Accounting		
Module-I (Theory: 100 hrs. practical: 50 hrs)		
Chapter 1: Introduction to the course Practical accounting-Introduction to Day book Ledger system of accounting. **Assignment:** Simple problem no.1.Up to Trial Balance	5	
Chapter 2: Basics of Book Keeping and accountancy Introduction to Accounting-Types of transactions-identification of Two different aspects of transactions-Debit & Credit.-Types of Accounts-Personal/Real/Nominal accounts-Rules of Debit and Credit for accounts-(golden rules)-preparation of journal entries from the given transactions-ledger posting-balancing-preparation of Trial Balance. **Assignment:**	5	
Preparation of final accounts-Trading and Profit & Loss account and Balance Sheet- Assignment. **Chapter 3: Financial Accounting Theory Question** **Chapter 4: Accounting conventions and concepts** **Chapter 5: Deemed assets**	5	
Chapter 6: General awareness of GST & Practice Problems General awareness of GST-CGST,SGST,IGST,UTGST,GST (State Compensation) Act-Rates of taxes-input tax, output tax, set-off, application of GST in practical accounting.	5	5

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Simple problem No.2		
Introduction to GST-Revision of previous lesson Input CGST/SGST/IGST/UTGST Output CGST/SGST/IGST/UTGST Practical Accounting work of an Electrical Shop with the application of GST (original work) **Prakash Electricals- Day Book up to 3rd April-**showing the daily balances-posting to ledger Accounts	5	
Scrutiny of previous day's work **Prakash Electricals continued-up to 30th April.** Calculation of GST-preparation of statements of Outward supply, inward supply, statement of input tax, statement of output tax-computation of tax- set off-S37,38,39 and S49-GSTR-1, GSTR-2 , GSTR-3, GSTR-3B **Assignment:** Ledger posting.	5	
Scrutiny of previous day's work-stock transfer in and stock transfer out-Prakash Electricals continued up to 30th June-GST calculation-Assignment: Ledger posting .	5	
Apportionment of credit and blocked credit S17.Drawings –reverse tax-composite supply-mixed supply-TDS-S51 TCS- S52 Reverse charge S8(3) S9(4)	5	
Prakash Electricals up to 30th Sept. **Assignment:** Ledger posting.. Balancing of ledger accounts-closing entries-preparation of Trial balance-schedules of inward supply./outward supply, ,schedule of closing stock- schedule of sundry debtors/sundry creditors./depreciation etc.-Final accounts-annual return S44	5	5
Preparation of accounts of large scale business organizations- **Petre& co.** Cash book-subsidiary books-ledger system. practical study of subdivision of journal etailed study of : Cash book-purchase Day Book-(inward supply of goods-)-Sales Day book (Outward supply of goods) Purchase returns Day book-Debit Note-Sales Returns day Book (Credit Note) Bills Receivable Book-Bills Payable Book-Journal Proper(General Journal) Preparation of registers like purchase register-sales register-cheque receivable register, cheque payable register-etc. supporting documents-preparation and filing different documents keeping secret documents in safe custody under locker. Class work-recording documents in the proper books-**Peter & co. 1st April to 4th April. and posting to ledgers.**	5	5

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Peter & co, problem continued. from 5th April to 30th April. Posting to ledger. Debtors ledger-Creditors ledger-General ledger	5	
Peter & co. continued. Recording transactions in proper books-from1st May to 30th Sept. Assignment: Posting to various ledger accounts.	5	
Peter & co. continued. Recording transactions in proper books-from1stOct to 31 March. Assignment: Posting to various ledger accounts	5	
Peter &co continued. Balancing of ledger accounts. Closing entries Trial balance Preparation of various schedules- Trading and Profit & loss account and Balance sheet.	5	5
Preparation of accounts of different types of Trading organizations: 1.Preparation of accounts of a textile shop from incomplete records-and documents: Presentation of accounts before the tax authorities-verification of accounts-rejection-best **judgment assessment:** preassessment notice-appeal-procedure.	5	5
Preparation of accounts of different types of Trading organizations : The Account of a Jewelry:Preparation of stock register-calculation of cost of production wastage value addition etc. Preparation of Final Accounts and Day book.	5	5
Preparation of accounts of different types of Non Trading organizations: The account of a Hospital: Doctor Nurse proportion The amount of tax to be paid Gross total income Net income Indirect expenses indirect income Surplus/deficit Receipts and payments account Income & Expenditure Account Capital fund-Preparation of Income & Expenditure account & Balance Sheet.	5	5
a) Preparation of accounts of different types of Financing organizations: The account of a money lending institution SDL/SDR/ License Security lending only accepting	5	5

deposits only from friends and relatives-interest rates not to exceed beyond 2% above commercial bank rates-premature closing of accounts loan renewal auction accounting day book daily stock register total stock register Ledger accounts Final accounts. b) Rectification of Different Types of Errors, Errors of omission, errors of commission, errors of principle, compensating errors, errors of original entry, errors of transposition, errors of reversal, Journal proper with narration.		
Preparation of necessary documents for presentation in a bank for obtaining over draft. OD on the basis of suitable security/stock held by the business men prove the stock of the business a projected trading and profit and loss account and a projected Balance Sheet.	5	5
Preparation of Bank Reconciliation Statement from original documents SB account Current account difference between the two advantages of current account bank statement difference between bank balances as per Cash Book and Bank Statement comparing CB and Bank statement to find the reasons for difference-updating of Cash book- preparation of BRS. Class work: problem No.1 to 5 Assignment **Chapter 7: Finanvcial Accounting Model Questions Part-1** **Chapter 8: Part 3 Questions**	5	5
Total	100 Hrs	50 Hrs
Paper II: Direct & Indirect Tax		
Module-II (Theory: 60 hrs. practical: 50 hrs)		

Chapters: 9 & 10: GST Theory-meaning and scope of GST? Advantages of GST-features of GST, Dual GST, Thresholds Constitutional provisions relating to GST, Federal system of Govt., Unitary system of govt. union list-state list-concurrent list-powers of govt-revenue of central and state govts.,(different types of taxes) , direct and indirect taxes levied by central and state govts. constitutional amendment 101 for GST need for amendment, historical data relating to general sales tax, VAT, GST, excise duty (Cen VAT) Service tax basic customs duty etc. Taxes levied by local bodies subsuming of central taxes state taxes and local body taxes, Taxes outside GST (reason) uniformity in indirect taxes, Kelkar commission, empowered committee of state finance ministers, suggestion for implementing GST, presentation of GST in the 2007 union budget, appointment of working groups-submission of reports by working groups, presenting the constitutional amendment bill in the lok Sabha in 2011by PranabkumarMukharjee, lapsed, presenting the same bill in the year 2014 by Jaitley, RajyaSabha passing the bill with amendments, re presentation of the bill in the Loksabha and the bill got passed, signed by the President, Constitution of the GST Council, members powers formation of a company to administer GST-GSTN.	5	5
GST theory continued: explanation of important terms used in GST: Taxable event in respect of various taxes including GST supply, sale, income, manufacture, provision of service, import, related person distinct person establishment of distinct person and tax exemptions business verticals input service distributor etc. **Chapter 11**: Registration (S22 to 30) Definitions of certain terms-persons required to obtain registration-Registration irrespective of threshold-multiple business verticals procedure for registration of existing registrants-cancellation of registration procedure for cancellation of registration by registered persons. **Chapter 12 & 13:** Meaning and scope of Supply-neither a supply of goods nor a supply of service Activities to be treated as supply even if made without consideration (Sch-1) activities to be treated as supply of goods or supply of service (Sch-2) Activities to be treated neither as supply of goods nor supply of service-(sch-3) Time of supply of goods (S12) Time of supply of service (S13). **Chapter 14 & 15** Levy and collection of Tax-(S-9) Composition Levy (S 10) Composition scheme is not applicable to Rates for manufacturers contractors restaurants others Payment of tax, Deposit to electronic cash ledger, Tax Invoice, invoice for unregistered recipient, manner of issue of tax invoice.	5	5
Chapter 16: Input Tax Credit- (S16) R-36 to 45. Relevant definitions specific provision for transfer of liabilities conditions for	10	5

availing input tax credit-in eligible input tax credit issues with reference to ITC Definition, Goods-Service-Supplier-consideration-composite supply-mixed supply principal supply, related person. TDS (S51) TDS on notified goods- Persons responsible for deducting tax, Refund (S54) Refund includes, Refund procedure, Refund key issues.

Chapter 17,18,19 (S37,38,39):

Returns, Forms for returns, GST R1,GSTR 2 ,GSTR 3, GSTR 3B, GSTR 4, GSTR 5, GSTR 7, GSTR 8, GSTR 9 GSTR 9A, GSTR 9B, GSTR 10 ,GSTR 11.

Forms generated through common portal, Forms and due dates, Manner of payment of tax, Electronic liability Register,Electronic credit ledger, Electronic cash Ledger.

Chapter 20: Demand (S73 R142-161) tax has not been paid or short paid, or erroneously refunded or input tax credit has been wrongly availed or utilized, he shall serve notice on the person requiring him to show cause as to why he should not pay the tax specified in the notice along with interest and a penalty as per the provisions of the Act. Demand on account of reasons on account of fraud or any willful misstatement or suppression of facts (section 74). **Section 123: Penalty for failure to furnish information return.** **Section 132: Punishment for certain offences** **Chapter 21**: offences and penalties-(S122-132) **Chapter 22: Accounts&records S35. R56 to 58 records by non registered persons** **Section 35: R58 Compulsory audit R.80** **Section 36: Period of retention of account**	5	5
Chapter23: Assessment& audit **Self assessment S59 R 98 to 102.** **provisional assessment**: Section 60 assessment & audit Section.65 scrutiny of returns Section.61best judgment assessment Section 62. and issue of assessment order departmental audit: Section.65 departmental audit: Section.65	10	5

Chapter 24: Arrest (section 69)		
Chapter 25: Gst practitioner S116/ Section 48		
Chapter 26: Electronic commerce Sec 2(44)		
Chapter 27: Common portal S146 CGST Act2017		
Chapter 28: Administration-classes of officers: Section. 3.		
Chapter 29: 100.GST:A few items and their Rates of Taxes	5	5
Chapter 30: abbreviations (In the context of the above topics)		
Chapter 31: GST Model Qns		
Chapter 32: Paper 2, PART 3		
Chapter 33: Answer Key		
Chapter 34: The Employees' Provident Fund (EPF) Scheme 1952: Employees Provident Fund, license-labour registration, PF registration rates of contribution, Forms PF Statement Filing.	5	5
Chapter 35: Gratuity, Gratuity eligibility rate calculation	5	5
Chapter 36: Social Security Benefits under ESI Act, Employees State Insurance Act, license, labour registration, ESI registration, salary statement, calculation of ESI, contribution, filing, forms.	5	5
Chapter 37: Computation of Taxable Income. Income tax Act & Rules-short title-extent and commencement-Definitions: Assessee, assessment previous year ,person(HUF, individual ,firm, company, AOP, BOI, local authority ,every artificial juridical person, previous year, capital, assets, transfer, Heads of income. Gross total income ,deductions,-Total income-Agricultural income-aggregate income-S80c. Income tax rates, slab rate, flat rate-special rate-scope of total income-Residential status-calculation of tax-rebate on agricultural income-charging section-regular tax rates-Tax deducted/collected at source-advance tax rates-self assessment of tax-processing of returns of income.	5	5
Income tax rates-slab rate –flat rate-special rate-scope of total income-Residential status-calculation of tax-rebate on agricultural income-charging section-regular tax rates-Tax deducted/collected at source-advance tax rates-self assessment of tax-	5	5

processing of returns of income.

Heads of income: Salary- House property-business or profession-capital gains-other sources-Exemptions. Computation of taxable income-computation of tax liability.

Assignment.

	Total	60 Hrs	50 Hrs
Paper 3: Computerised Accounting: Tally ERP-9			
Module 3: (Theory: 40 hrs. practical: 40 hrs)			
Chapter 38: Introduction Accounting Definitions, Fundamentals of Accounting Rules of Accounting. Computerized Accounting, Manual Accounting Vs Computerized Accounting. Tally ERP 9, History & Versions of Tally.		5	5
Chapter 39: Starting of Tally ERP-9 Features of Tally, Gateway of Tally, Screen components of Tally, Creation and maintaining a company, Altering, Modifying and deleting a company -Taking data backup-restoring data backup-splitting company data based on financial year-importing data in to tally ERP-9-exporting data-exporting masters.		5	5
Chapter 40: Accounting Groups Accounting Groups, Different types of accounting Groups, Creation Of New group, Creation of Primary group, Displays Groups, Alteration & Deletion Of Groups.		5	5
Chapter 41: Accounting ledger Accounting & Inventory Masters. Accounting Ledgers, Creation Of Singles or Multiple Ledgers, Display of Singles or Multiple Ledgers, Deleting Singles or Multiple Ledgers, Creation of Voucher Type, Display, Alter, Delete A Voucher type. stock groups-stock categories-creating stock categories-stock items-displaying a stock item-units of measurement-creating bill of material for a stock item-locations and godown-batches and expiry dates.		5	5
Chapter 42: Voucher type Accounting Vouchers & Inventory Vouchers: Voucher entry creation screen-payment voucher entry- payment entry using bank-warning on negative cash balance-pre allocate bills for payment or receipt-Receipt voucher entry- purchase voucher entry-purchase invoice configuration-purchase entry for expenses/fixed		5	5

assets-sales voucher-recording a sales entry-sales invoice- material in voucher, Stock journal, Physical Stock. Non Accounting Vouchers		
Chapter 43: Vouchers Bank Reconciliation, viewing bank reconciliation report, Creating a new voucher in bank reconciliation. **Advanced features:** Cost categories-cost centers- Budgets, Creating budgets for ledgers- Viewing Budget variances in Trial Balance, interest calculation.	5	5
Chapter 44: Company Features Company Features & Configurations. Accounting features, Inventory features, Statutory & Taxation Features. TSS General features, Audit features, Add on features. General Configurations, Accounts & Inventory info Configuration, Voucher entry configuration, Invoice, Delivery Note or Order configuration, Banking configuration. Enabling- VAT, GST, TDS, TCS, Etc. Payrole.	5	5
Chapter 45: Company Configuration & Reports Display financial report. Financial statements-integrating accounts with inventory-P/L account-Income and expense statement-Trial Balance-Bank reconciliation-statement of accounts-viewing day book.	5	5
Total	40 Hrs	40 Hrs

VI. Lab record-general guidelines

Students of various courses shall be instructed to maintain one **Lab record** per Semester by including all practical oriented subjects included in the respective curriculum. **Lab record** can be issued from the ATC after collecting reasonable cost. **Lab** records duly certified by the respective subject teachers, should be produced for evaluation during final **lab** examination

- Students should prepare lab record by including the practical exercises of subjects like Financial Accounting, Direct & Indirect Tax, Tally ERP-9.
- For modules in Financial Accounting, Direct & Indirect Tax, Tally ERP-9, suitable application level problems for developing the respective skills shall be given by the subject teachers.

DEPARTMENT OF COMMERCE

GST PRACTITIONER COURSE

SYLLABUS

Total Hours:30

Course Outcome:

Students will be well versed with GST practices and will be able to do the accounts of any business concern using tally software

Course Content

Introduction to GST

Introduction-What is GST? -Registration -Supply of Goods & Services -Place of Supply-Time of Supply-Value of Supply-Invoicing-Input Credit Mechanism-E- Way Bills-Returns- Payment of tax-consequences of non- compliance-accounts & other records-tax rate structure- refund of tax-transition of GST-Input Service Distributors-Job Work-E-Commerce-Compliance Rating-GST Practitioner (GSTP)- GSTN and GSP- Audit-Demand and Recovery-Appeals and Revision-Liability to Pay.

Over all Grade

Grade	Description
A+	>=75%
A	>=60% <75%
B	>=36% <60%
Not Pass	<36%

DEPARTMENT OF COMMERCE

SOFT SKILLS FOR EXCELLENCE

PRINCIPAL IN-CHARGE
VIMALA COLLEGE
(AUTONOMOUS)
THRISSUR-680 009

VIMALA COLLEGE (AUTONOMOUS), THRISSUR

SYLLABUS

Duration: 50 Hours

OBJECTIVES:

- Empower participants to think high.
- Enable participants to converse in English.
- Train them to face an audience and interview board confidently.
- Help them to memorise lessons via memory training.

Course Outcome

Empower participants to think high.

- Enable participants to converse in English.
- Help them to memorize lessons via memory training.

Course Content

MODULE I: Attitude setting – Professionalism and Personalism – Success secrets – Girl to Women Empowerment – NLP – Thought Engineering. **20 Hours**
MODULE II: English success –Fluency training – Grammar grooming – Words to talk – Pronunciation mastering. **15 Hours**
MODULE III: Facing interview – Public speaking – Group Discussion training – Micro presentation – Personality development **15 hours**
References - Grant Taylor : English Conversation Practice, McGraw Hill Education, NewYork. - Shiv Kera:You Can Win, Macmillan Publishers India Ltd.,Chennai.

PRINCIPAL IN-CHARGE,
VIMALA COLLEGE
(AUTONOMOUS)
THRISSUR-680 009

LIFE SKILLS

SYLLABUS

Course Outcome

The course aimed at metamorphosing the academically equipped young minds and was meant to motivate them to transform into individuals with better persona.

Course Content   **Duration: 1 year**

- o Prioritisation and team building
- o Importance of planning
- o Emotional intelligence
- o Communication Skill
- o Stress management
- o Time Management
- o Spiritual Quotient
- o Goal setting
- o Life skills

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CENTRE FOR WOMEN STUDIES

CERTIFICATE COURSE IN GENDER SENSITIZATION

SYLLABUS

Course Outcomes
- To sensitize the students regarding the issues of gender inequalities prevailing in society.
- To introduce gender sensitization and its challenges

Total Hours: 30

Course Content
1. Introduction
2. Leadership and Communication Skills
3. Gender
   - Gender, Patriarchy and Institutions, Violence
4. Body, Reproductive Health and healthy practices in living
5. Self-defense moves
6. Three Phases
7. Mobility
8. Flexibility
9. Defense
10. Entrepreneurial Skills

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