

Criterion I

Curricular Aspects



1.3.2 Syllabus of Value Added Courses

(2020-2021)



DEPARTMENT OF BOTANY
INDIGENOUS KNOWLEDGE OF HERBAL MEDICINES IN KERALA
SYLLABUS

Course Outcomes

After the completion of this course, students will be enabled:

- To acquire more knowledge about the indigenous herbal medicine
- To gain more insights about the characters and healing properties of 30 medicinal plants commonly used in traditional healthcare systems
- To utilize these medicinal plants and prepare herbal medicines for natural remedies
- To popularize the indigenous knowledge in the community and conserve the plants
- To explore more medicinal properties by taking up research and higher studies

Course content

Herbal medicines are the drugs obtained from plants. Over 80% of people living in developing countries depend on herbal medicines as their immediate choice in the treatment of diseases showing its relevance and importance in Primary Health Care (Moody, 2007). Herbal medicines have been recognized by the WHO as the most popular form of traditional medicine, and thus, highly lucrative in the international medicine market. Traditional healers and grandparents are the major custodians of this wealth of knowledge which seldom get transferred to the new generation. Hence, there is a need to preserve the indigenous knowledge of herbal medicines which can be done by inclusion of this knowledge about herbal medicine in the college curriculum. This inclusion will impart the indigenous knowledge among the students and act as a great way of preserving the indigenous knowledge by carrying on the practice of traditional medicine to their old age. Moreover, this will increase awareness in the use of simple, harmless but useful herbs for our common ailments. It will also encourage many students to explore more about herbal medicine or related courses thereby promoting and strengthening the healthcare system in our country.



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Course Content

Total Hours: 30

Sl No	Topic	Hr
	Module 1	
1.	Introduction to Herbal Medicine: Ayurveda - Ancient Science of Health- Principles of Ayurveda, Dravyaguna Shastra- Herbal Medicine and Ayurveda	1hr
2.	Indigenous medicinal Plants of Kerala- Significance of Herbal Medicine - Our Potential and Challenges -Challenges in Herbal Medicine Research	1hr
	Module 2	
3.	Differences of Botanicals and Pharmaceuticals- Botanicals and Ayurveda	1hr
4.	Mode of Action of Botanicals- Understanding of action of Ayurveda herbs on body	1hr
	Module 3	
5.	Detailed study of some important medicinal plants (34 plants) which are popularly used as indigenous herbal medicines in Kerala. Dashapushpam Kanikkonna -Thumba - Kadaladi- Erukku- Karinochi Kattar Vazha- Veppu-Manjal- (Kasthuri Manjal -Mara Manjal) Shankhu Pushpam- Vayambu- Chembaratti -Tottavadi -Adalodakam Nalikeram- Muttanga- Patha thali- Naruneendi - Vayalchulli Shatavari- Kurunthotti- Avanakku- Brahmi/ Kudangal- Puliyaral	6 hrs



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Assessment Period (2016 - 2021)



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	Module: 4	
6.	Procedure for preparing herbal formulations	½ hr
7.	Understanding of Basic Ayurveda herbal formulations	½ hr
8.	Decoctions and Powders	1 hr
9.	Lehyam	1 hr
10.	Oils and Ghee preparations	1 hr
11.	Arishtam	1 hr
	<u>Practical (15 Hrs)</u> Submission - Compilation of Medicinal plants – 15 Hrs	
	<u>Mode of Internal Assessment</u> Online Quiz and Examinations after each Module – (1 hr each/ Module – Total 4 hrs)	



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DEPARTMENT OF BOTANY

G-BASIC SYLLABUS

Objective

The very basic course as the name implies, specially designed for the very novice to make them a "wellaware" type of user.

Duration 36 Hrs. /1 Month

Course Outcomes

To provide a basic understanding of Microsoft Office and enhance the computer skills among students

Exit profile

- Able to operate computers with ease
- Use MS Office applications for office automation
- Use Internet for basic requirements such as surfing and searching
- Create and use E-mails

Career path

- IT Educator
- Office Assistant
- Office secretary

Faculty Skill Set

- Knowledge in Computer Basic & MS DOS
- Knowledge in Windows 7/8 & applications
- Knowledge in MS Office 2013/2016

Hardware and Software Requirements

- Operating System: Windows 7/8
- Minimum Memory: 512 M
- Recommended Memory: 2 GB / 4 GB
- Minimum Disk Space: 500 MB free
- Recommended Disk Space: 1 TB
- Browsers : Mozilla / IE 8



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Course Content

Total Hours: 36

G-TEC COMPUTER EDUCATION

ISO 9001:2008 CERTIFIED

Admin Office: House of G-TEC, Calicut -02., India Corp. Office: Peace Centre, Singapore-228149

Ver 4.0 505

Computer Basic & MS DOS

Windows 7/8 & Introduction to OS/GUI

Introduction to MS Office 2010/2013/2010 – Word, Excel, PowerPoint

Internet

Trainer Guide

Computer Basic & MS DOS (8 Hrs)

Fundamentals- History of computing, Modern Computers, Computer Hardware, Input Devices, Output Devices, System Unit, Storage Devices, Removable Storage Devices, Types of computers, Computer Software, Communication Devices, Accessories. About DOS, DOS File system, Elementary and intermediate DOS commands: DIR, DATE, TIME, CLS, VER, DISKCOPY, FORMAT, VOL, LABEL, CD, MD, RD, PROMPT, MOVE, COPY, TYPE, DEL, REN, MOVE, and RD /S; Advanced DOS

commands: ATTRIB, SUBST, XCOPY, DOSKEY, and the MS-DOS Text Editor.

LAB: Introduce Computer I/O devices, System Unit, Use run command and menu to switch to DOS mode, Practice DOS commands, use advanced DOS Commands

Windows 7/8 & Introduction to OS/GUI (10 Hrs)

Introduction to Windows 7/8, Mouse Basics, Working in Windows 7/8, Learning More about the Mouse, Components of a window, Quitting Windows 7/8, Using Explorer Window, Getting familiar with desktop, window sizing, creating program shortcuts, Windows Accessories.



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LAB: Introduce OS, the basic components of windows, task bar, start button, opening programs using start button, viewing recently used documents, quick launchers, adjusting time/date, switching between programs using mouse and keyboard shortcuts, and all basic computer operations. Windows Explorer saving file, printing a file, installing a printer, files and folders in Windows, Opening Explorer Window, parts of an Explorer window, basic file operations through Explorer window, Emptying Recycle bin, window sizing, creating program shortcuts. Windows Accessories: Paint, Wordpad, Calculator, Windows Media player, Playing VCDs and DVDs, playing movie in full screen mode, Saving movies, working with images, Copying photographs from Digital camera, using removable storage devices (pen drives, data discs).

MS Office (10 Hrs)

Getting Started with Microsoft Word 2013/2016

Exploring New Features in Word 2016, Starting Microsoft Word 2016, Creating a New Word Document, Saving a Word Document, Applying Basic Formatting, Working with Styles, Applying Bulleted and Numbered Lists, Using Cut, Copy, and Paste Commands, Using Find, Replace, and Go To Commands, Printing a Word Document, Opening an Existing Word Document, Closing a Word Document, Exiting Microsoft Word

Getting Started with Microsoft Excel 2013/2016

G-TEC COMPUTER EDUCATION

Exploring New Features in Excel 2016, Creating a New Excel Workbook, saving an Excel Workbook, Adding Data to Cells, Adding Data using AutoFill, Modifying Cells, Rows, Columns, and Worksheet, Hiding and Unhiding Rows and Columns, Wrapping Text, Changing NumberFormats, Adding Borders to Cells, Applying Conditional Formatting, Renaming a Worksheet. Accessing Workbooks from the Web, Opening an Existing Excel Workbook, Printing a Worksheet or a Workbook, Closing an Excel Workbook, Exiting Microsoft Excel



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Getting Started with Microsoft PowerPoint 2016

Exploring New Features in PowerPoint 2016, Creating a Blank Presentation, saving a Presentation, Adding and Removing Slides, Adding a Title and Subtitle to a Slide, Adding Text to a Slide using Text Boxes, Setting Up and Running a Slide Show, Broadcasting PowerPoint Slideshows, Recording Slideshows as Videos, Packaging a Presentation on a CD, Opening an Existing Presentation

Internet, E-mail and Chatting (8 Hrs)

What is Internet, basic concepts and html, Internal architecture, browsers, search engines and e-mail providers. Browsing, Searching using search engines, e-mails and chatting.

LAB: Introduction to Internet, concept of web, website, server and client. Introduce Internet Explorer and its components (favourites, history, bookmarks, internet options), search using a key Word, eXperimenting links (text and image), dynamic websites and static websites,

Create an email account and basic mail operations (reading mail, sending mail, erasing mail, spams/trash, sent mails, email settings, signatures, inbox and filtering). Chatting using the same account, installing a chat software, setting the visibility, setting picture and text, adding/removing contacts, sending chat request, blocking a particular user.

EXAMINATION PROCEDURES

MARK DISTRIBUTION

Theory 50 marks

Computer Basics, MS DOS, Windows 7/8, Introduction to OS, Introduction to MS Office, Internet and Email

Practical 50 marks

Computer Basics, MS DOS, Windows 7/8, Introduction to OS, Introduction to MS Office, Internet and Email



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DEPARTMENT OF CHEMISTRY A PRACTICAL FRAMEWORK TO RESEARCH AND DEVELOPMENT SYLLABUS

Course Outcomes

- CO1:** Apply the methods of scientific research
CO2: Built knowledge on chromatographic and spectroscopic methods
CO3: Acquire proficiency in data analysis
CO4: Enable the students to develop analytical skills

Course content

Total Hours: 40

Sl No	Content	Hrs
1.	Module 1: Research discover and design	(10 Hours)
	Overview of Research Process, familiarizing students with a variety of research methods, including survey research, interviewing, participant observation, case studies, comparative analysis, and the use of documentary/primary sources. Conducting a literature review, Constructing Hypotheses, Identifying Variables, Types of Study Designs, Selecting a Method of Data Collection, To organize and describe data and effective display, Ethical Issues in Research, Validity and Reliability in Research, Scientific paper writing. Introduction to Journals and Publishers, Publishing a scientific paper, Peer review process.	
2.	Module 2: Instrumental Techniques	(10 Hours)
	Chromatographic techniques, Column Chromatography, Paper chromatography, Thin layer chromatography Fourier-transform infrared spectroscopy, UV-Visible Spectroscopy, Photoluminescence Spectroscopy, Optical methods- Polarimeter, Turbidimeter	
3.	Module 3: Data Analysis	(10 Hours)
	General introduction to Origin Pro for converting data to graphs, Chem draw for 2D and 3D representation of molecular structure. Research work presentation	
4.	Module 4: Practical approach to Chemical analyses	(10 Hours)
	Food adulteration, Structural characterization, Separation identification and purification of components by Chromatographic methods	



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DEPARTMENT OF CHEMISTRY
PRACTICAL METHODS IN FOOD ANALYSIS
SYLLABUS

Duration: 35 hrs

Course Outcomes

CO1: Understand the basic concepts behind colloidal state

CO2: Acquire knowledge about food sampling techniques

CO3: Understand components of food

CO4: Describe food additives and food adulteration

CO5: Built knowledge on food laws and regulations in India

Course content

Unit 1: ANALYSIS OF PHYSICO-CHEMICAL PROPERTIES OF FOOD (4hrs)

Physico-chemical properties of food- boiling point, evaporation, melting point, smoke point, surface tension, osmosis, humidity, freezing point and specific gravity - Titrable acidity, Non-enzymatic browning, water activity, sulphur dioxide, Benzoic acid and H-ion concentration. Colloidal systems- Particle size and extent of dispersion, stability of colloids, properties of colloidal dispersion. Starch and protein colloids. Type of colloidal system in food- sol, gel, emulsion, foam.

Unit 2: SAMPLING TECHNIQUES AND PROXIMATE ANALYSIS (8hrs)

Preparation of samples - dry food sample, moist solid foods. Enzyme inactivation, Storage and preservation- Role of microbes in spoilage of foods and their control- Use of antimicrobial chemicals- organic acids, sugars, sodium chloride, nitrites, phosphates, sulphites, Benzoates, Sorbates / Propionates naturally occurring antimicrobials; Physical methods- Low and high temperatures, drying, radiation and high pressure; Proximate Analysis: Moisture and total solids-different methods, ash, Crude protein, Crude fat, crude fibre, Nitrogen free extract.

Unit 3: PROXIMATE ANALYSIS OF MAJOR COMPONENTS IN FOOD I (6 hrs)

Carbohydrates

Sugars - reducing and non-reducing sugar, sucrose. Starch- Amylose, water soluble amylose.



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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 4: PROXIMATE ANALYSIS OF MAJOR COMPONENTS IN FOOD II (4hrs)

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 5: FOOD ADDITIVES AND ADULTERATION (5 hrs)

Food additives, antioxidants, sequestrants, preservatives, nutrient supplement, emulsifiers, stabilizers and thickening agents, bleaching and maturing agent, sweeteners, humectants and anti-caking agents, coloring and flavoring substance Food adulteration: Types of adulterants- intentional and incidental adulterants, methods of detection. Health hazards and risks.

Unit 5: FOOD LAWS AND REGULATION IN INDIA (3 hrs)

Laws governing food industry, need for new act, key regulations of FSSAI, Requirements and benefits of food grades and standard- BIS, AGMARK, ISI, FPO, CAC

Unit 6: PRACTICAL METHODS (5hr)

Detection of adulteration in food products-pulses, spices, honey, milk, oil, tea and coffee, sweets - Determination of Saponification value and Iodine value of oil and Fat.

References

1. Srilakshmi B. Food Science 4th edition. New age International
2. Srivastava, R. P. and Kumar, S. 1998, Fruit and vegetable preservation: principles and Practice. 2nd edition. International book distributing co., Lucknow.
3. Mohini Sethi and Eram S Rao. Food science experiments and applications. CBS publishers.
4. Raghuramulu, N., Madhavan Nair, K., and Kalyanasundaram, S. Ed. 1983.
5. A Manual of Laboratory Techniques. National Institute of Nutrition, ICMR, Hyderabad.



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6. Warner, J.M. 1976. Principles of Dairy Processing. Wiley Eastern Ltd. New Delhi
7. Jay, J.M. "Modern Food Microbiology". 4th Edition. CBS Publishers, 2003
8. Adams, M.R and M.O. Moss. "Food Microbiology". New Age International, 2002
9. Mann, Jim and Stewart Truswell "Essentials of Human Nutrition". 3rd Edition. Oxford, University Press, 2007.
10. Gibney, Michael J., et al., "Introduction to Human Nutrition". 2nd Edition. Blackwell, 2009.
11. Gropper, Sareen S. and Jack L.Smith "Advanced Nutrition and Human Metabolism". 5th Edition. Wadsworth Publishing, 2008.



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DEPARTMENT OF COMPUTER SCIENCE

LATEX SYLLABUS

Course Outcomes

- Typeset a document in a structured manner
- Acquaint with adding mathematical notations needed in Computer Science
- Create an article/document in Latex

Course Content

Total Hours: 30

Content

Module 1 (7 hrs)

Introduction: Latex, Features, TeX, Installation, TeXmaker, File types, Latex editor, Online Latex editors, How to use latex, Symbols, List, Font, Format, Comments & Spacing, Special Characters, Tables, Color, Image, Figure, Graphs, Smart Diagrams, Block Structures.

Module 2 (8 hrs)

Latex Math: Math's symbols, equations, fractions, matrix, Integral, Partial Derivative. Latex using TikZ: Block diagram, Flow diagram, Node Graph, Graph of equations, Pie charts, Bar Graphs.

Module 3 (15 hrs)

Document Structure: Essentials, Troubleshooting, creating a Title, Sections, Labelling, Table of Contents, Inserting References, Header and Footer, Case Study: Resume Template, IEEE Document Template.

References

Chetan.P.Shirore, *A Beginners guide to Latex*.

Helmut Kopka and Patrick W.Daly, *Guide to Latex*, Fourth edition.

Desmond Higham and David Francis Griffiths, *Learning LaTeX: Second Edition*.



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Mode of Evaluation: Assignments

Number of participants expected for the course	: 40
Starting Date	: 10 th November 2020
Ending Date	: 10 th February 2021
Number of teaching hours per week	: 2 hrs
Final Evaluation in 17 th February 2021	
Monday and Wednesday	
Number of teaching Hours per week	: 2hrs per week



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DEPARTMENT OF COMPUTER SCIENCE

MASTERING THE ART OF DIGITAL LEARNING AND CYBER ETHICS SYLLABUS

- Objective:
 - Enable the student to safely and effectively use various tools in the digital world
 - To familiarize the students about the ethics and fare usage of digital technology
- Pre-requisites
 - Basic Knowledge on the usage of emails and internet
- Course Outcomes
 - Understand the threats of cyber world
 - Effectively use digital technologies safely
 - Acquaint with various modern tools which helps to connect collaborate and share

Course Content

Total Hours: 30

Module I (9 hrs)

Google drive & private Youtube channels: Create folders, Upload a new file & folder, Organize, Share files, different sharing modes, How to use Youtube, download and upload videos

Module II (9 hrs)

Google forms: Setting up a survey, edit and format, sharing it with people, viewing the response, analyzing its statistics, setting up a quiz using google forms

Module III (9 hrs)

Google docs: Create, edit and formatting of google docs, slides, sheets. Usage of Google calendar, Google classrooms



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Module IV (3 hrs)

Cyber ethics: The Internet and Ethical Values, Personal Information on the Internet, Vulnerabilities of the Net, Cybercrime, Security Measures in Cyberspace, The Ethics of Blogging

References

<https://support.google.com/>

<https://edu.google.com/teacher-center>

<https://edu.gcfglobal.org/en/topics/googleapps/>

Cyber ethics: Morality and Law in Cyberspace, 5th Edition by Spinello



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DEPARTMENT OF COMPUTER SCIENCE

UNDERSTANDING AND VISUALIZING DATA WITH PYTHON

SYLLABUS

Course Outcomes

- Visualize data in order to interactively and efficiently convey insights
- Analyze different types of data and interpret summaries for both univariate and multivariate data
- Differentiate probability and non-probability sampling

Course Content

Total Hours: 30

Module 1 (6 hrs.): Understanding and Visualizing Data Guidelines, What is Statistics? Perspectives on Statistics in Real Life, Where Do Data Come From, Variable Types, Study Design, Introduction to Jupyter Notebooks, Data Types in Python, Introduction to Libraries and Data Management

Module 2 (6 hrs.): Categorical Data: Tables, Bar Charts & Pie Charts, Quantitative Data: Histograms

Quantitative Data: Numerical Summaries, Standard Score (Empirical Rule), Quantitative Data: Boxplots, Demo: Interactive Histogram & Boxplot, Important Python Libraries, Tables, Histograms, Boxplots in Python.

Module 3 (8 hrs.): Looking at Associations with Multivariate Categorical Data, Looking at Associations with Multivariate Quantitative Data, Demo: Interactive Scatterplot, Introduction to Pizza Assignment, Multivariate Data Selection, Multivariate Distributions, Unit Testing



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Module 4 (10 hrs.): Sampling from Well-Defined Populations, Probability Sampling, Non-Probability Sampling, Sampling Variance & Sampling Distributions, Interactive Sampling Distribution, Beyond Means: Sampling Distributions of Other Common Statistics, Making Population Inference Based on Only One Sample, Inference for Non-Probability Samples, Complex Samples, Sampling from a Biased Population, Randomness and Reproducibility, The Empirical Rule of Distribution.

References

1. Problem Solving and Python Programming by Balagurusamy, McGraw Hill Education
2. Python for Everybody: Exploring Data in Python 3, Dr. Charles Russell Severance, Sue Blumenberg, Elliott Hauser, Aimee Andrion, CreateSpace Publisher
3. Python for Data Analysis, Wes McKinney, Published by O'Reilly Media, Inc.

Mode of Evaluation: Assignments, Mini Project



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DEPARTMENT OF HOME SCIENCE CATERING AND CULINARY ARTS SYLLABUS

Course Outcomes

Develop basic knowledge in various nutrient present in foods

Develop practical knowledge in cooking and culinary arts

Acquire the skills in quantity food preparation

Course Objective

This course involves both theory and actual hands-on lab and work experience. Students will develop the culinary knowledge and practical experience. They can prepare, cook as well as present food in an effective and attractive manner

Total Hours: 40

Exam-

Theory-10 marks

Practical-20marks

Total 30 marks

Fees – 500/- (online classes)

2Hours /week

THEORY-----10 hours

Unit 1:	Introduction to Food, Classification of food, Functions and Nutrient composition of Food	(4 hours)
Unit 2	Preliminary methods of Cooking, Different methods Cooking, Objectives of Cooking	(2Hrs)
Unit3	Baking, Definition, Role of Ingredients in Baking –egg, flour, yeast, sugar	(2hrs)



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Assessment Period (2016 - 2021)



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Unit 4	Food additives: types	(1hrs)
Unit 5	Basics of Quantity food preparation	(1hrs)
PRACTICALS---20 hours		
Unit 6	Preparation with cereals-Preparation of Cakes Brownies, Doughnuts, biriyani and fried rice	(10hrs)
Unit 7	Preparation with milk Paneer, Peda, Rasagula, Gulabjam	(10hrs)
Unit 8	Preservative methods –jam jelly,and squash	(4hrs)
Unit 9	Table setting, basic of vegetable carving	(2)hrs
Unit 1	Quantity food preparation of any one food item.	(4hrs)



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DEPARTMENT OF MATHEMATICS TYPE SETTING THROUGH LATEX SYLLABUS

Aims and Objectives

LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation. **LaTeX** (a shortening of L^AT_EX) is a document preparation system. When writing, the writer uses plain text as opposed to the formatted text found in WYSIWYG ("what you see is what you get") word processors like Microsoft Word, LibreOffice Writer and Apple Pages.

LaTeX is widely used for the communication and publication of scientific documents in many fields, including mathematics, statistics, computer science, engineering, chemistry, physics, economics, linguistics, quantitative psychology, philosophy, and political science. It also has a prominent role in the preparation and publication of books and articles that contain complex multilingual materials, such as Sanskrit. LaTeX uses the TeX typesetting program for formatting its output, and is itself written in the TeX macro language.

LaTeX is intended to provide a high-level, descriptive markup language that accesses the power of TeX in an easier way for writers. In essence, TeX handles the layout side, while LaTeX handles the content side for document processing. LaTeX comprises a collection of TeX macros and a program to process LaTeX documents, and because the plain TeX formatting commands are elementary, it provides authors with ready-made commands for formatting and layout requirements such as chapter headings, footnotes, cross-references and bibliographies.

Course Outcomes

The student will be able to

- Typeset mathematical formulae using LaTeX.
- Use the preamble of LaTeX file to define document class and layout options.
- Enumerate environments within a document.
- Use tabular and array environments within LaTeX document.
- Use various methods to either create or import graphics into a LaTeX document.



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- Define and use new commands within LaTeX.
- Use Theorem, Corollary, and other environments.
- Use BibTeX to maintain bibliographic information and to generate a bibliography for a particular document.

Course content

Total Hours: 30

Text: A document Preparation System, LaTeX (Second Edition)
Author: Leslie Lamport
Module I. Getting Started (7 hours)
Preparing the input file, Sentences and Paragraphs, The Document, Sectioning, Displayed Material, Declarations (Chapter 2. Sections 2.1,2.2)
Module II. Carrying on (13 Hrs)
Changing the type style, Symbols from other Languages, Mathematical Formulas: Some common structures, Mathematical symbols, arrays, Delimiters, Multi line formulas, Putting one thing over another, Spacing in math mode, Changing style in Math Mode, When all else fails Defining commands, Defining environments, Theorems and such, Figures and Tables, Marginal notes, The tabbing environment, The tabular environment (Chapter 3 sections 3.1 to 3.6)
Module III. Moving Information Around (8 hrs)
The table of contents, Cross references, Bibliography and Citation, splitting your input, Making an index or glossary, Keyboard input and screen output, Sending your document. (Section : 4.1 – 4.7)
Module IV. Other document classes (2 hrs)
Slides and overlays, Notes, Printing only some slides and notes, other text (Section 5.2)



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DEPARTMENT OF MATHEMATICS

MATHEMATICS SKILL DEVELOPMENT PROGRAMME (MSDP)

SYLLABUS

Course Outcomes

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

Course Content

Total Hours: 32

Module I (8 hrs)

- Combined operators and square roots
- Percentage
- Mensuration

Module II (8 hrs)

- Progression
- H.C.F and L.C.M
- Factors and prime numbers

Module III (8 hrs)

- Time and Distance
- Time and work
- Average

Module IV (8 hrs)

- Simple and Compound Interest
- Profit and Loss
- Ratio and Proportion



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DEPARTMENT OF PHYSICS
ENERGY AUDITING
SYLLABUS

Course Outcomes

- ☐ To impart a scientific understanding of the fundamentals related to energy
- ☐ To acquire knowledge on energy conservation and energy auditing
- ☐ To be aware of basic electrical safety measures
- ☐ To practice environment friendly aspects of energy consumption

Course Content

Total Hours: 30

Unit-01: Global and Indian Energy Scenario

6 hours

Global Energy Scenario - Indian Energy Scenario - Role of energy in economic development and social transformation: Energy & GDP, GNP and its dynamics – Energy resources and consumption in various sectors and its changing pattern - Exponential increase in energy consumption and Projected future demands - Depletion of energy sources and impact exponential rise in energy consumption on economies of countries and on international relations - Energy Security - Energy for Sustainable Development - Energy and Environmental policies - Need for use of new and renewable energy sources its impact on environmental climatic change.

Unit-02: Energy resources

6 hours

Classification of Energy Sources - Principle fuels for energy conversion: Fossil fuels, Nuclear fuels - Conventional & Renewable Energy Sources: Coal, Oil, Natural Gas, Nuclear Power and Hydroelectricity, Solar and Other Renewable etc. - prospecting, extraction and resource assessment and their peculiar characteristics




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**Unit-03: Energy Auditing****10 hours**

Energy Audit Instruments - Basic measurements – Electrical and Thermal Energy measurements, Light, Pressure, Temperature and heat flux, Velocity and Flow rate, Vibrations, etc. Instruments Used in Energy systems: Load and power factor measuring equipments, Wattmeter, flue gas analysis, Temperature and thermal loss measurements, air quality analysis etc. - Mathematical and statistical modeling and analysis - Mechanical & Utility System Measurements - M & V Protocol

Unit-04: Electrical safety of domestic appliances**8 hours**

Principles of domestic appliances – Air conditioner, Fridge, Induction Cooker, Mixi, Grinder, Electrical Iron, Washing machine, TV, Computer, UPS Lights etc. – Calculations for selection of inverter, UPS, solar appliances, bio gas plant – Electrical safety aspects – Wiring, Earthing, MCB, ELCB etc. –Precautions to prevent electrical accidents - BEE Star rating, ISI stamping

Mode of Evaluation:

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

Assignments – 3

Individual Seminar – 1

Mini Project - 1 each

Major Project - 1 (by a group of 5)

Industrial visit - 1

References

1. Non – Conventional Energy Resources, G. D. Rai, Khanna Publishers, 2008.
2. Solar Energy Fundamentals and application, H.P. Garg and J. Prakash, Tata McGraw-Hill Publishing company Ltd., 1997.
3. Energy Technology, S. Rao and Dr. B.B. Parulekar, 1997, 2nd edition
4. Power Technology, A. K. Wahil. 1993



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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



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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. Sun's 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 PSYCHOLOGY BASIC THEMES IN PSYCHOLOGY SYLLABUS

Objectives of the Course

The course intends to help the participants to learn the basic concepts in Psychology. It offers an outline on the key areas of behaviour. On completion of the course the participant will have an overview of basic knowledge about important aspects of human behaviour.

Course Outcomes

- Get an overview on the key aspects of human behaviour
- Develop the basic skills to understand the behaviour of human society

Duration of the course: 6 months

Number of teaching hours: 30

Course Fee:500/-

Name of the faculty: Smt Linda Davis C, Former faculty, St. Mary's college, Thrissur

Intake:40 participants

Course content

Module 1 Introduction	4 hrs
Psychology: A working definition. Brief history of modern scientific psychology: Branches of Psychology.	
Module 2 Attention and Perception	6 hrs
Attention: selective and sustained attention; Factors affecting attention; Phenomena associated with attention-span of attention, division of attention, distraction of attention. Perception, Visual illusions	
Module 3 Learning	4 hrs
Concept of learning, Types of Learning; Associative learning (Classical and operant conditioning)	
Module 4 Memory	4 hrs
Key processes in memory: Encoding, Storage and Retrieval, sensory memory, short term memory and long-term memory, Forgetting: Reasons of forgetting, Strategies for remembering; Mnemonics.	



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Assessment Period (2016 - 2021)



Module 5: Consciousness

2 hrs

States of Consciousness :Sleep and Dreams

Module 6: Motivation and Emotion

3 hrs

Introduction: Primary and secondary motives.

Hierarchy of motives.

Concept of Emotion. Physiological correlates of emotion. Lie detectors

Module 7: Intelligence

3 hrs

Definition, nature and meaning of intelligence,.Determinants of intelligence – Role of heredity and environment.. Concept of IQ, Mental retardation and giftedness

Module 8: Personality

4 hrs

Concept of Personality Psychodynamic approaches. Freud's theory: instinct theory,Levels of consciousness, structure of personality, defense mechanisms, psychosexual stages of development, Trait and Type theories

References:

Baron, R.A. (2004). Psychology, 5th ed. New Delhi: Pearson education.

Bootzin, R., & Bower, G.H. (1991). *Psychology today- An Introduction*. 7th ed. New York: Mc Graw Hill Inc.

Commer, R. & Gould, E. (2011). Psychology around Us. New Delhi: John Wiley & Sons Inc.

Coon,D.& Mitterer,J.O.(2013)Introduction to Psychology: Gateways to Mind and Behavior, 13th ed.Wadsworth, Cengage Learning

Feldman, R. (2011). Understanding Psychology,10th edition. New Delhi: Tata McGraw Hill.

Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (1993). Introduction to Psychology, 7th ed. New Delhi: Tata McGraw Hill.

Passer M.W.& Smith.R E.,(2007).psychology-the science of mind and behaviour(3rd ed.). New Delhi: Tata McGraw Hill

Weiten, W. (2002). Psychology: Themes and Variations, 5th ed. New York: Brooks/Cole Publishing co.



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Additional References:

Gerrig, R. J (2013) *Psychology and Life* (20th Edn) Boston: Pearson

Kuppuswamy, B. (1990). *Elements of ancient Indian Psychology*, 3rd ed. New Delhi: Konark Publishers Pvt. Ltd.

Mishra, B.K. (2008). *Psychology: The study of Human Behavior*. New Delhi: Prentice Hall of India

Mode of evaluation:

A candidate enrolled for the Add on course will be evaluated in the manner given below:

External Evaluation: An examination will be conducted by the department at the end of the course. It will comprise of a Theory Paper of 50 marks.

50% marks is required for pass and those who secured 50% or more will be issued a certificate by the department.




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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF STATISTICS

CERTIFICATE COURSE ON BASICS OF STATISTICAL DATA ANALYSIS SYLLABUS

Overview

The word "Data" drives the current world. Every nation or organization, or even a single person can crumble or strengthen with the power of data. An increasingly digital-driven world also boasts of data that is more measurable and trend-reflective.

This certificate course will provide a comprehensive and exhaustive hands-on experience on data science based software packages such as spreadsheets and SPSS after strengthening the theoretical frame work of statistical concepts. The major topics covered are measures of central tendency, dispersion, graphical representation of data, verifying the relationship between the variables and establishing a model based on their relationship.

Course Objectives

1. To develop the student's ability to deal with numerical and quantitative variables
2. To have a proper understanding of statistical investigations on data analytics
3. To enable the use of software packages on data manipulation and its interpretation

Course Outcomes

On completion of this course, the students will be able to:

1. understand and discuss critically that data based on central tendency measures, dispersion measures, and relation measures.
2. handle the spreadsheets and SPSS and basic data manipulations on it
3. perform basic statistical analysis and its interpretation based on spreadsheets and SPSS

Syllabus

Module I

Introduction to data, presentation of raw data, graphs and diagrams (Pie chart, Bar chart, and Histogram), measures of central tendency (Mean, Median and Mode) and dispersion (Standard deviation), correlation (Pearson's and rank correlation), linear regression.



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF STATISTICS ADVANCED COURSE IN C++ & 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.



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF ZOOLOGY APICULTURE SYLLABUS

Course Outcomes

- Illustrate the steps in beekeeping and management
- Describe various steps in apiculture Attain practical skill in keeping the bee hive and maintain bee colonies
- Identify the role of beekeeping in enhancing women entrepreneurial skill
- Understand the composition and applications of bee products
- Describe the market value of bee products
- Identify various products from honey bees
- Understand the biology, morphology, species composition and social life of honey bees

Course Content

Total Hours : 35

Unit I (6 hrs)

History of bee keeping

Species diversity of honey bees

Pollination support through beekeeping -Role honeybees in ecosystem

Domestication of Indian bees and Italian bees

Bee hives and peculiarities

Capturing of bee colonies

Bee keeping equipments



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Unit II(5 hrs)

Biology and social life of honey bees

Morphology and identification of Queen, drones and worker bees, cast system in honey bees-family and cast, division of labor, bee dance and communication in bees

Honey Bee biology-emerging of queen, swarming, mating, egg laying, life span

Collection of pollen by bees, morphological modifications - modified legs, extraction of pollen

Royal jelly and hormonal influence

Bee wax, wax glands

Nesting pattern of bees

Bee sting, bee venom, venom gland

Architectural design of bee hives, types of cells

Unit III (8 hrs)

Basic operational principles of bee colonies

Selection of location

Up keeping of bee colonies

Off seasonal management of bee colonies

Growth period management

Honey flow-seasonal management

Diseases and parasites of honey bees-control measures

Unit IV (7 hrs)

Honey and its ingredients

Composition of honey, conversion of nectar to honey

Economic importance of honey and other bee products

Medical value of honey, special properties and uses of honey, processing and value addition of honey

Bee wax and uses, extraction, purification, processing and value addition of bee wax Bee pollen and bee venom – uses

Unit V (5 hrs)

Marketing aspects of bee products

Role of Govt and Non-Govt agencies in promoting apiculture in Kerala

Present status and future scope of apiculture as a small-scale industry in Kerala



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Present scenario and Scope of apiculture in India

Unit VI –Practical Session (4hrs)

Identification of different casts in honeybees-Queen, drones and workers

Structure of honey comb-different type of cells for queen, drones and workers

Morphological peculiarities of worker bees-Honey and pollen storage structures

Familiarize bee keeping instruments and bee hives

REFERENCES

- Graham, J M (1992) The hive and the honey bee. Dadant and Sons, Hamilton, Illinois.
- Mishra R.C. (1995) Honey bees and their management in India. ICAR Publication, New Delhi.
- Singh, S. (1971) **Beekeeping** in India, ICAR publication.
- Gupta, J.K., Sharma, H K and Thakur, R K. **2009**. Practical Manual on Beekeeping. Department of Entomology and Apiculture, Dr Y S Parmar University of Horticulture and Forestry, Nauni, Solan, p 83.
- Gupta, J K. **2010**. Spring management of honey bee colonies. In "OAPI-012 Management of honey bee colonies; Seasonal and specific management (Block 2), Indira Gandhi National open university, school of Agriculture, New Delhi, UNIT-I, pp 5-14, p 105.
- Gupta, J K. **2010**. Management in summer. In "OAPI-012 Management of honey bee colonies; Seasonal and specific management (Block 2), Indira Gandhi National open university, school of Agriculture, New Delhi, UNIT-II, pp 15-25, p 105.
- Gupta, J K. **2010**. Management in monsoon season. In "OAPI-012 Management of honey bee colonies; Seasonal and specific management (Block 2), Indira Gandhi National open university, school of Agriculture, New Delhi, UNIT-III, pp 26-33, p 105.
- Gupta, J K. **2010**. Management in autumn season. In "OAPI-012 Management of honey bee colonies; Seasonal and specific management (Block 2), Indira Gandhi National open university, school of Agriculture, New Delhi, UNIT-IV, pp 34-40, p 105.
- Gupta, J K. **2010**. Management in winter. In "OAPI-012 Management of honey bee colonies; Seasonal and specific management (Block 2), Indira Gandhi National open university, school of Agriculture, New Delhi, UNIT-V, pp 41-50, p 105.
- Gatoria, G.S., Gupta, J. K., Thakur, R.K. and Singh, J. **2011**. Mass queen bee rearing and multiplication of honey bee colonies. All India Co-ordinated project on honey bees and pollinators, ICAR, HAU, Hisar, p70.



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DEPARTMENT OF ZOOLOGY

WOMEN AND HEALTH

SYLLABUS

Total Hrs of instruction: 35 hrs (2 hrs/week)

BACKGROUND

There are many health issues that primarily affect women. And some of the health issues that affect both men and women can affect women differently

Unique issues include pregnancy, menopause and conditions of the female organs. They should also get recommended breast cancer, cervical cancer and bone density screenings.

Women and men also have many of the same health problems. But these problems can affect women differently. For example,

- Women are more likely to die following a heart attack than men
- Women are more likely to show signs of depression and anxiety than men
- The effects of sexually transmitted diseases can be more serious in women
- Osteoarthritis affects more women than men
- Women are more likely to have urinary tract problems

This add on course "Women and Health" looks into the unique issues of women which would be very helpful to all the girl students since health is an important concern for all

Course Outcomes

Develop the skills necessary for lifelong learning in the area of women's health.

Explain diet related diseases and healthy nutrition for women

Describe the basic exercise procedures for keeping the health and wellness of women of all age groups

Make recommendations for healthy aging in women, taking into consideration changing hormone levels.

Identify and make management recommendations for mental health issues affecting women (eating disorders, depression, post-partum depression, psychosis).



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Describe the basic physiology of the reproductive system and develop appropriate pharmaceutical care plans for menstrual disorders, and fertility promotion

Discuss the role of preventive care in women's health such as: Screening for female-specific cancers, HPV vaccine, Nutrition and vitamins, preparation for pregnancy and Sexually transmitted diseases

Identify issues related to domestic violence and sexual harassment.

Discuss health issues and prevention in midlife

Identify the issues related with work-family balance in women

SYLLABUS

(35 hrs)

Women's Health and Human Rights (3 Hours)

Being born a girl

Brief History of Global Health & Women's Health

Health as a Human Right

Nutrition and Health (4 hours)

Healthy Diet- Carbohydrates, Fiber, Fat, Essential Fatty Acids, Protein, Minerals, Macrominerals, Trace minerals, Vitamins, Water, Antioxidants

RDA

Intestinal Bacterial Flora

Diet related diseases and their prevention

Alternate Life Styles (2 hours)

Exercise

Healthy eating

Adolescent Health (3 hours)

Adolescent period

Growth and development

Menstruation, related conditions & hygiene

Mental health



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Sexual Health (10 hours)

Women's anatomy, physiology and sexuality
Pregnancy and child birth
Breast feeding
Birth control and Abortion
Infertility
Endometriosis
Sexually Transmissible Infections
Reproductive Tract infections
Urinary Tract Infection (UTI)
Yeast Infection and Vaginitis

Midlife Health (8 hours)

Midlife Health issues and their prevention
Menopause
HRT
Osteoporosis and bone density screening
Cardiovascular Disease
Cervical Cancer
Pap Tests and HPV Tests
Ovarian Cancer
Breast Cancer Screenings
Self-Breast Examination

Women and mental health (1 hour)

Eating disorders, depression, post-partum depression, psychosis

Violence against Women (2 hours)

Domestic violence
Sexual harassment issues

Work/Family Balance: Can Women "have it all"? (2 hours)

Resource persons: Faculty members from Zoology dept, Dr.Sr.Ruby and Dr.Finto (Gynaecologists), Faculty from Home Science dept, psychologist for taking class on mental health in women, Faculty from physical education dept for taking class on exercise.

Mode of Evaluation:

At the end of the course, a written examination of 2 hrs duration with a maximum mark of 40, will be conducted by the department in consultation with the resource persons and faculty members who are taking the classes. Certificate will be issued by the college.



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DEPARTMENT OF ECONOMICS SUSTAINABLE FARMING – METHODS AND PRACTICES

SYLLABUS

Course Outcome

Students become aware means and ways of production of sufficient human food, feed, fiber and fuel to meet the needs of a sharply rising population

Course Content

Total Hours: 30

MODULE I (8 hr)

Environmental problems caused by conventional agriculture-Sustainable agriculture
Sustainable agriculture and economic development- Importance of sustainable agriculture in India and Kerala.

MODULE II (8 hr)

Hunger and food security- Subsistence agriculture- commercial agriculture - Agricultural Price Policy- Trends in relative prices of farm products.

MODULE III (14 hr)

Major farming practices - organic farming- Mixed farming- Sources of agricultural finance
Institutional Sources – Non-institutional Sources.

Field Exposure:

1. Agricultural Field Visit
2. Hands-on experience working in an organic farm- community engagement in agricultural projects of panchayats/ selected farm /community sites
3. Conducting/coordinating Agri product exhibition



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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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**DEPARTMENT OF ECONOMICS
INTRODUCTION TO ECONOMETRICS
SYLLABUS**

Course Objectives

1. To provide a knowledge in the subject matter of Econometrics
2. To provide a foundation in econometric analysis.
3. To develop skills required for empirical research in Economics

Course Outcomes

- Understand the basic econometric concepts and techniques.
- Gain skills to develop econometric models
- Getting skills in econometric analysis.
- Hands on Experience in Statistical Software Packages

Mode of Assessment

- Assignments
- Examination

Syllabus

Total Hours: 30

Module I: Nature and Scope of Econometrics - Econometrics, economic theory and mathematical economics-Methodology of econometrics-Desirable properties of an Econometric model –Limitations of Econometrics.

Module II : Basic probability concepts: – Mutually exclusive and collectively exhaustive events – statistically independent events, sample space, events. Types of probability –A Priori Classical probability – Empirical Classical Probability - conditional probability- Bay's theorem, Random variables- probability distribution- Mathematical expectation- moments- Two random variables, joint, Marginal and conditional probability functions, expectation of two random variables. Discrete and Continuous Probability Distributions (Binomial, Poisson and Normal), concept of law of large numbers and Central limit theorem.

Module III: Simple Linear Regression Model - The concept of PRF -Significance of stochastic error term-The SRF-Problem of estimation-Method of ordinary least squares-Assumptions underlying the method of least squares-Properties of estimators-Gauss Markov Theorem- Coefficient of determination-Normality Assumption-Hypothesis testing-t and F tests-P value and Statistical significance.



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Module IV: Multiple Regression Analysis - The three-variable model-OLS estimation of partial regression coefficients-Multiple coefficients of determination and adjusted R^2 -Hypothesis Testing-Testing the overall significance of the regression model-F test-Testing the equality of two regression coefficients-Restricted least squares - Dummy variables and their uses.

Module V: Econometric Problems - Multicollinearity-Nature, consequences, detection and remedial measures-Autocorrelation-Nature, consequences, detection, and remedial measures-Heteroskedasticity-Nature, consequences, detection and remedial measures.

Module VI: Regression Analysis using SPSS

References

1. Damodar N Gujarati and Dawn C Porter (2009)-Basic Econometrics, Fifth edition, McGraw Hill International Edition
2. James H Stock and Mark W Watson (2017) -Introduction to Econometrics, third edition, Pearson, Addison Wesley.
3. Carter Hill, William Griffiths and Guay Lim (2011) –Principles of Econometrics, 4th edition, John Wiley & Sons
4. Jeffrey M Wooldridge (2018) –Introductory Econometrics, a Modern Approach, 7th edition, Thomson South Western.
5. Robert S Pyndick and Daniel L Rubinfeld (1998) –Econometric Models and Economic Forecasts, Fourth edition, McGraw Hill International



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DEPARTMENT OF ENGLISH

FRENCH SYLLABUS

Course Outcomes

Communicate effectively in French in a variety of speaking situations.

Exposure to more advanced job opportunities and ability to connect to people of different cultures

Course content

Total Hours: 30

Leçons	Objets communiés	Grammaire/lexique	Page
0. Le français, quelle est sa place ?	• Les notions de la civilisation française		01
1. La rentrée	• Saluer • Parler de la quantité • Répondre au salut	• Les articles • Les verbes en -er, -ir, -re et le régime • La négation • Les adverbes de quantité	04-07
2. Et toi, français ?	• Décrire une personne • Parler de la famille	• La finale et le pluriel des noms et des adjectifs • La position des adjectifs • L'infinitif après les auxiliaires • Les membres de la famille • Les habitudes et les routines	10-12
3. La journée de Mme Lavoie	• Décrire la journée • Dire l'heure • Parler des saisons	• Les verbes pronominaux • Les nombres cardinaux et ordinaux • Les saisons, les jours de la semaine et les mois de l'année	13-16
4. Raison et méthode	• Interroger une / Parler de la santé	• Trois formes d'interrogation • L'interrogation négative et « si » • Les expressions avec « mais » • Les adjectifs • Les conjonctions	17-20
5. Faire les courses	• Parler des achats	• Les adjectifs interrogatifs • Les verbes « savoir » et « connaître » • Les repas français • Les magasins, le marché • Les plats et la nourriture	21-24
6. St. Lavoie cherche un logement	• Faire des achats (suite) • Localiser un objet	• Les prépositions • Les verbes en -re, -re, -re, -re • Les pronoms et les accessoires	25-28



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Leçons	Objectifs communicatifs	Grammaire/vocabulaire	Pages
7. Allons à Paris	• Parler des fêtes française	• Les prépositions de lieu • Les noms de pays • Les nationalités	54-60
8. Les photos de Manuel	• Localiser un endroit	• Les verbes irréguliers • Les adjectifs démonstratifs • Les fêtes françaises • Les professions	61-66
9. Au café des Laurent	• Commander un plat	• L'impératif affirmatif et le négatif • L'impératif des verbes pronominaux • Les courtois	67-73
10. Ecrire une lettre de Rome	• Ecrire une lettre • Interroger sur les objets • Parler de ses centres d'intérêts, de ses engagements	• Les adjectifs interrogatifs • Les expressions avec « faire » • La révision et la consolidation de la grammaire précédente • Les loisirs et les sports	74-83
11. Une journée bien chargée	• Raconter un événement du passé	• Le passé composé • Les verbes conjugués avec « avoir » au passé composé	84-91
12. Une visite au parc d'attractions	• Raconter un événement du passé (suite)	• Le passé composé (suite) • Les verbes conjugués avec « être » au passé composé	92-97
• Lexique 1			98
• Bilan			99-111 110-121



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF ENGLISH

GERMAN SYLLABUS

Course Outcomes

Communicate effectively in German in a variety of speaking situations. Demonstrate comprehension of spoken German in a variety of listening situations.

Course Content

Total Hours: 30

Inhalt	
1. Guten Tag! Grußwörter	0 - 15
2. Freunde, Kollegen und ich Lernzusammenhänge	15 - 25
3. In der Stadt Lernzusammenhänge	25 - 40
4. Guten Appetit! Lernzusammenhänge	40 - 55
5. Tag für Tag Lernzusammenhänge	55 - 65
6. Zeit mit Freunden Lernzusammenhänge	65 - 80
7. Kontakte Lernzusammenhänge	80 - 95
8. Meine Wohnung Lernzusammenhänge	95 - 105
9. Alles Fertig? Lernzusammenhänge	105 - 120
10. Kleidung und Mode Lernzusammenhänge	120 - 135
11. Gesund und munter Lernzusammenhänge	135 - 150
12. Wo in den Urlaub Lernzusammenhänge	150 - 165
Plattform 1 Hörkomponente	40
Plattform 2 Hörkomponente	60
Plattform 3 Hörkomponente	120
Plattform 4 Hörkomponente	80
Unregelmäßige Zeiten Wissen im Kopf Differenzierung	85 107 108



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF ENGLISH TRINITY GESE CERTIFICATE EXAM

SYLLABUS

Total Hours: 30

About the Course

The Department of English provides training for the Trinity GESE (Graded Examinations in Spoken English) of Trinity College, London. The Department is a registered teaching and exam centre of the course. Students can register for the thirty-hour course which will be conducted after class hours on weekdays. The classes will be handled by both internal and external resource persons.

GESE exams will be an excellent testing option for pre-acquired Spoken English skills.

All students with basic English language proficiency can join the preparatory course for the GESE exam.

Course format

GESE exams offer a progressive framework for the development of English language skills and an assessment for every learner. GESE is available globally at 12 levels: Grades 1-12 (pre-A1-C2 CEFR levels).

Grades (1-3) Initial stage: Pre-A1-A2.1

Grades (4-6) Elementary stage: A2.2-B1.2

Grades (7-9) Intermediate stage: B2.1-B2.3

Grades (10-12) Advanced stage: C1.1-C2

The Department offers Grade 6. However competent students can opt for a higher Grade Examination.

Objective

To prepare the learners for GESE Grade 6 Exam.

Course Outcome

Proficiency in handling Elementary level English.

Certification

GESE exams are aligned with the European Qualifications Framework (EQF) and also recognised around the world as evidence of English language proficiency.



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF HINDI HINDI FOR COMMUNICATION AND COMPUTING SYLLABUS

Course Outcomes

On completing the course, students are expected to have good command over Hindi language and become good communicators

Students increase their productivity in handling information resources by familiarizing with computing aspects in Hindi

Course Content

Duration: 1 year

SUBJECT OF STUDY

- Spoken Hindi
- Translation
- Hindi computing

SPOKEN HINDI

Grammar

- Words-Sentence formation
- Day to Day conversation Topics

TRANSLATION

- Definition and nature of Translation
- The Tools of Translation and their use
- The Process of Translation and the role of Translator
- Different forms of Translation

Translation, Transcreation, Adaptation, Imitation, Summary Translation, Word for word Translation etc.

- A review of development of Translation in Hindi
- Translation Work - English to Hindi, Hindi to English

HINDI COMPUTING

- History and Development of Computer Different parts of Computer
- Different software in Hindi



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF MALAYALAM CERTIFICATE COURSE IN HEALTHY LIVING SYLLABUS

Course Outcomes

This course is designed to give basic awareness about **HEALTHY LIVING**.

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

Duration of the Course

Total Hours: 50

Titles and hour duration

SYLLABUS IN DETAIL

PAPER-1 Healthy Body

Unit 1 Exercises

Unit 2 Healthy Diet

Unit 3 Health & Beauty

PAPER 2-Yoga

Unit 1 - Theory

Unit 2- Practical

PAPER 3-Naturopathy

Unit 1 - Organic Food

Unit 2 - Organic Farming

PAPER 4-Mental Health

Unit 1 – Counselling



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Titles		Hours
1	Healthy Body -Exercises	10
2	Yoga for Health	10
3	Healthy Food Habits	9
4	Naturopathy	6
5	Health &Beauty	6
6	Mental Health& Counselling	4
7	Organic Living	5



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF MALAYALAM
MALAYALAM COMPUTING

SYLLABUS

വിമല കോളേജ് (ഓട്ടോണോമസ്), തൃശ്ശൂർ
ബിരുദാനന്തര ബിരുദ മലയാള ഗവേഷണ വിഭാഗം
വാല്യു ആഡഡ് കോഴ്സ്

வெய்யாஜம் சுப்பாதுரை

சுருது 1, 2

ചിത്രം 30 തുടർച്ച

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അമ്മയും കുഞ്ഞുപ്പിന് നന്ദി ഇ-വിദ്യാഭ്യാസം ശക്തിപ്പെടുത്തുകയാണ് പ്രധാന ലക്ഷ്യം. അമ്മയുടേതിനെ പുനഃശിക്ഷണ ശക്തിപ്പെടുത്തുന്നതിനായി കുറിയൊക്കലിനിലകൊള്ളുന്നത് അമ്മയും കുഞ്ഞുപ്പിന്, അമ്മയുടേതായ വിദ്യാഭ്യാസത്തിന് ഇതിനോടനുബന്ധിച്ച് പുറത്തുപോകുന്നത് പരീണനേടുകയാണ് ലക്ഷ്യം. പ്രായോഗികപരിപാടികളിലൂടെയുണ്ടാകുന്നതിനോടൊപ്പം കോഴി മുറയ്ക്കലും പഠിക്കും.

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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF POLITICAL SCIENCE HUMAN RIGHTS IN INDIA SYLLABUS

Objectives:

- The course intends to make them to understand the need to know their human rights and know that they must take responsibility to protect themselves and their peers.
- The course intends to develop awareness of how **human rights** can be translated into social and political reality

Outcome:

On Completion of the course the student

- Will empower students to develop skills and behaviour that would promote dignity and equality within themselves, family, and community and all over the society/ world.
- Become valuable advocates for tolerance, peace, respect, solidarity, and responsibility and become good global citizens

Syllabus

Module I: UNO and Human Rights: Universal Declaration of Human Rights: A brief analysis

Module II: (A) Indian Constitution and Human Rights: Civil and Political Rights, Socio-economic and cultural Rights. (B) Acts on Human Rights: Right to Information

Module III: Agencies for protecting Human Rights: Judiciary, Public

Interest Litigation (PIL), National Human Rights Commission and Media.

Module IV :Challenges to Human Rights in India. Human Rights violations among Minorities, Dalits and Adivasis, women, children and other marginalized sections.

Duration of the course: 6 months

Number of teaching hours: 30

Course Fee:500/-

Name of the faculty:Mohammed Aslam, Former faculty, Sree Kerala Varma College, Thrissur

Intake:40 participants

Mode of evaluation:

A candidate enrolled for the Add on course will be evaluated in the manner given below:

External Evaluation: An examination will be conducted by the department at The end of the course. It will comprise of a Theory Paper of 50 marks.

50% marks is required for pass and those who secured 50% or more will be issued a certificate by the department.



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF SOCIOLOGY

ENTREPRENEURIAL SKILL DEVELOPMENT AND SELF EMPLOYMENT FOR WOMEN

Syllabus for 2nd year Add-on Course (2020-21)

Department of Sociology

ENTREPRENEURSHIP DEVELOPMENT AND SELF EMPLOYMENT FOR WOMEN

Beneficiaries : III & IV sem Students (Open to All)

Duration : 6 months

Hours assigned : 40

Expected Strength : 45

Time: Monday & Tuesday 2 pm to 3pm

Objective

To equip the students with entrepreneurial skills needed for self-employment and self-reliance.

I. Introductory on Entrepreneurship and self-employment - 10 hrs

1. Concepts and overview of entrepreneurship and self-employment
(Meaning, Definition, evolution, characteristics, skills, objectives, types, functions etc)
2. Dimensions of Entrepreneurship-Women entrepreneurship
3. Socio-economic implications-advantages and limitations.

II. Models and trends of Entrepreneurship - 6 hrs

1. Models of entrepreneurship and Emerging trends
2. Entrepreneurial potential and potential entrepreneur
3. Entrepreneurial orientations -creating new identity, project design, financial statement analysis.

III. Opportunities and start-up policy - 6 hrs



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Assessment Period (2016 - 2021)



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1. Opportunities in the context of Kerala
 2. Start-up policy framework and incentives.
- Schemes, programmes and policies for self-employment

IV. Experience sharing and training from the experts - 8hrs

Field Visit: Interaction with Entrepreneurs (Firsthand Experience)

Project: Case studies –entrepreneurial role model

Internship: 10 hour

Course Outcomes:

Enable to start a micro-enterprise by students.

Confidence and self esteem boosting among young women.

Attitudinal and perceptual change towards unemployment

Reference:

Dogar, Rana. "The Top 500 Women-Owned Businesses." *Working Woman*, May 1998.

Duff, Carolyn S. *When Women Work Together: Using Our Strengths to Overcome Our Challenges*. Berkeley, CA: Conari Press, 1993.

Godfrey, Joline. *Our Wildest Dreams: Women Entrepreneurs Making Money, Having Fun, Doing Good*. New York: Harper-Business, 1992.

Gracie, Sarah. "In the Company of Women." *Management Today*, June 1998.

Heim, Pat, and Susan Golant. *Hardball for Women: Winning at the Game of Business*. Los Angeles: Lowell House, 1992.

Landrum, Gene N. *Profiles of Female Genius: Thirteen Creative Women Who Changed the World*. Amherst, NY: Prometheus Books, 1994.

Larkin, Geraldine A. *Woman to Woman: Street Smarts for Women Entrepreneurs*. Englewood Cliffs, NJ: Prentice Hall, 1993.



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DEPARTMENT OF SOCIOLOGY HOW TO WRITE, PRESENT AND PUBLISH RESEARCH PROJECTS SYLLABUS

Total Hours: 30

Strength: 30

Fee: 100

Objective: This course is designed to promote and help those students who wish to have an experience in academic research and publishing.

Course Outcome: Early entry into academic writing and publishing by mastering the skills to do Research papers.

Course Content:

Module: 1

How to do the Research Process, Understanding the Academia and the Ethical Concerns.

Module: 2

How to Prepare a Research Proposal, Designing and Execution of the Paper.

Module: 3

How to write the Research Paper

Module :4

How to Present and Publish a Research Paper

References:

American Psychological Association (2003) APA Style. Available online at:
<http://www.apastyle.org/pubmanual.html>.

Berry, R. (1986) How to Write a Research Paper, Pergamon Press, Oxford.



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF PHYSICAL EDUCATION HOLISTIC APPROACH IN YOGA THERAPY SYLLABUS

Course Outcome:

- Students become aware of the health benefits of yoga for total personality development
- Students develop positive health, prevention of stress related health conditions and apply yoga therapy to common ailments

Course Content:

Total Hours: 30

PART-A	
Theory 1	Orientation to Ashtanga Yoga
Unit-1	The origin of Yoga-definition-concept-aims and objective of Yoga-as a science and art
Unit-2	Ashtanga Yoga Stages, Streams of Yoga-Karma Yoga-Bhakti Yoga- Jnana Yoga- Raja Yoga- Hata Yoga-Patanjali Yoga sutras
Unit-3	Yogic Postures –Surya namaskar- Asanas-Objectives-Common Asanas and their types-Sitting standing Lying postures- Relaxation –Cultural-Meditative - Breathing techniques
Unit 4	Yogic Diet – Sathvic, Rajasic and Thamasic Food
Unit 5	Shat kriyas- Kabhalbhati, Tratak, Neti, Douthi, Nouli and Basthi
Unit 6	Varieties of Kumbhaka

Theory 2 Health Wellness and Related Aspects

- Unit 1 Physical Fitness components
- Unit 2 Types of Physical Fitness
- Unit 3 Health Related Physical Fitness
- Unit 4 Warming up and limbering down
- Unit 5 Posture – Postural defects

PART – B

Practical

Sarvangasana, Matsyasana, Halasana, Bhujangasana, Salabhasana, Dhanurasana, Savasana, Makarasana, Vajrasana, Ushtrasana, Gomukhasana, Paschimotanasana, Padmasana, Vakrasana, Ardhamasyandrasana , Vrikshasana, Trikonasana, Konasana, Bhadrasana



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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF SOCIAL WORK BASIC SKILLS IN COUNSELLING

SYLLABUS

Total Hours: 30

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

Learning objectives:

1. To acquire knowledge and skills in practising counselling
2. To gain basic understanding regarding mental health issues
3. To familiarize the learners with different theoretical approaches in counselling.
4. Gain basic understanding regarding counselling techniques and practice of counselling in different settings

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

Unit III Counselling

relationship Counselling

relationship: definition,

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

- Mental Health ,
- characteristics of a mentally healthy person
- life skill and mental health



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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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VIMALA COLLEGE (AUTONOMOUS), THRISSUR

DEPARTMENT OF COMMERCE

DIPLOMA IN PRACTICAL ACCOUNTING AND TAX PRACTICE

SYLLABUS

Title of the Proposed Course	Diploma in Practical Accounting & Tax Practice (DPATP)
Duration	100 Hours (Spread over the academic Year)
Course Offered by	NCVRT New Delhi (www.ncvrtindia.org). Course code-com1327
Name & designation of the coordinator	S Omanakuttan
Course Fee	Rs.5, 000 Tuition Fee + Rs.1, 500 Registration & Fees
Details of collaboration if any	Tax Study Centre
No. of participants expected	40 nos

Course outcome

Students will be well versed in practical accounting, able to handle all tax matters relating to GST, Income tax, ESI, PF, with in depth knowledge in related registrations, E- filing, etc. A student, who completes this course successfully, will be equipped to handle diverse accounts of large, medium and small-scale business organizations, financial institutions and manufacturing companies. This course will help them get placed in small- & large-scale business organizations & companies.



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Syllabus:-

Course Code:com-1327; Diploma in Practical Accounting and Tax Practice (DPATP)

1. Academic system of Accounting

[Journal – Ledger System]

Basic Principles of Accounting – Journalizing, Ledger Posting, Balancing, Preparation of Trial Balance and Finalization of Accounts (Preparation of Trading Account, Profit and Loss Account and Balance Sheet.)

2. PRACTICAL ACCOUNTING

1. Day Book – Ledger System of Accounting with detailed application of GST. Preparation of Day Book (Conversion of Academic System to Practical System). Ledger Posting, Balancing, Preparation of Trial Balance, Schedules for Purchase, Sales, Sundry Debtors, Sundry Creditors and other Accounts- Valuation of Closing Stock- Preparation of Final Accounts (Trading Account – Profit and Loss Account and Balance Sheet)- Other necessary statements to be produced before the Tax Authorities and Management. Application of GST, preparation of Statements of Purchases, Sales, Input Tax, Output Tax, preparation of GST Returns and E-Filing.

2. Cash Book – Subsidiary Book – Ledger System

This system of practical accounting contains accounts of largescale organizations having different Departments like Purchase Department, Sales Department, Cash Department etc. and a Group of Accountants working in different Departments.



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3. Preparation of Cash Book – Purchase Day Book – Sales Day Book, Purchase and Sales Returns Books, Bills Receivable Book, Bills Payable Book and Journal Proper (Detailed Study)
General Ledger – Debtors Ledger, Creditors Ledger, Purchase Register, Sales Register, Cheque Receivable Register- Cheque Payable Register etc...Preparation of Schedules - Trial Balance, Computation of Stock, Depreciation, Bad Debts and Discounts etc. Preparation of Final Accounts.
4. Preparation of Bank Reconciliation Statement (Practical)
5. Preparation of Project Report for obtaining Overdraft from Banks.
6. Practical accounting of different types of business organisations:
 - a) Generation of the account of a TEXTILE shop based on Shop Inspection Report(SIR)
 - b) Preparation of the accounts of a Jewellery from available information.
 - c) Preparation of the accounts of a non trading organization (Hospital)
 - d) Preparation of the accounts of a financial institution (Money Lending institution)
7. Rectification of different types of accounting errors.
8. Introduction: KGST Act 1963, & Rules – Historical data- need for the introduction of VAT system in India -- Single point tax,-- points of levy-- schedules in KGST- ST, AST,-- Surcharge, Forms-- Goods and Service Tax: Difference between direct and indirect tax --single point Tax system and multi point Tax system--.



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Introduction to GST-- Constitutional Amendment for GST --- objectives-- understanding the concept of GST-- subsuming of multiple taxes in the present system -- salient features of GST -- destination based Tax -- dual GST to be levied by the Centre and State simultaneously -- CGST- SGST(UTGST)-IGST-- Advantages of GST-- Difference between direct and indirect tax --single point Tax system and multi point Tax system--.

9. Section wise analysis of GST (with related Rules and Forms)

Module 1. S1 Short title- extent and commencement—S2 Definitions : Aggregate turn over – business--business vertical-input tax – output tax – inward supply –outward supply-- composite supply--mixed supply –consideration-- input service distributor – input service-- nonresident taxable person – reverse charge-- tax return preparer--credit note, debit note, exempt supply-- export of goods,--export of service, IGST, import of goods-- import of service– input service – input service distributor-- input tax-input tax credit- inward supply-- place of supply-- outward supply--continuous supply of goods-service-reverse charge-zero rated supply,--works contract—

Module 2. S3 Officers under this Act, --S4.appointment,--S5 powers etc.—

Module 3. S7.Levy & Collection: Supply --S8.tax liability on composite and mixed supplies S9.Charging Section-Reverse charge-levy and collection of tax-S10.Tax liability on composite and mixed supplies –Rules-GSTCMP 01 and all other forms-effective date of composition levy-conditions-validity-rate of composition.S11.Power to grant exemptions.

Module 4.

Time and Value of Supply: S12-13-Time of Supply of goods/services –S14. Change in rate of tax in respect of supply of goods or services. S15. Value of taxable supply-



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Module 5. Input Tax Credit: S16-Eligibility for input Tax credit-conditions for taking input tax credit S17 apportionment of credit and blocked credits S18. Availability of credit in special circumstances S19.taking input tax credit in respect of inputs and capital goods sent for job works. S20 Distribution of credit by input service distributor-

Module 6.Registration: S22-Persons liable for registration S23. Persons not liable for registration- S24. Compulsory registration in certain cases. S25. Procedure for registration S26.Deemed registration-S27.Special provisions relating to casual taxable persons and non resident taxable persons-S28. Amendment of registration- S29. Cancellation of registration-

Module 7. Tax Invoice, Debit and Credit Notes: S31-Tax invoice-S32 –Prohibition of unauthorized collection of tax- S33. Amount of tax to be indicated in tax invoice and other documents-- S34.Debit and Credit Notes. --.

Module 8.S35.Accounts and other records--36 Period of retention of accounts.—

Module 9>Returns: S37- Furnishing details of outward supplies.--S38.Furnishing details of inward supplies --S39.Submission of returns (R59) --S40.First Return-- S41 Claim of input tax credit and provisional acceptance thereof--S42.Matching, reversal and reclaim of input tax credit --S43. Matching, reversal and reclaim of output tax liability--S44 Annual return-- S45. final returns – S46. Notice to return defaulters--S47 Lev of late fee-- S48 GST Practitioners---

Module 10. Payment of Tax: S49 Payment of tax, interest, penalty and other amounts--S50 interest on delayed payment of tax--S51- TDS-- S 52Collection of tax at source--S53. Transfer of input tax credit –

Module 11.S54 Refund—



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Module 12.Assessment: S59-Self assessment-- S60 Provisional Assessment-- S61. Scrutiny of returns --S62. Assessment of non-filers of return --S63 Assessment of unregistered persons –

Module 13.Audit: S65-Audit by tax authorities.--

Module 14.Inspection, Search, Seizure and Arrest S67Inspection,Search,seizure and arrest-- S68 inspection of goods in movement.-- S69. Power to arrest.-- S70 Power to summon persons to give evidence and produce documents-- S71. Access to business premises—

Module 15.Demand and Recovery. S73 Determination of tax not paid or short paid -- S74Determination of tax not paid or short paid by fraud--S76 Tax collected but not deposited to government --S79Recovery of tax and procedure-

Module 16.S85 to S94 Liability to pay tax in certain cases –S95 to 106--Advance ruling --107-121-appeals and revision—

Module 17.S122--138 Offences and penalties.

Module 18.Integrated Goods and Services Tax Act2017:

Module 19.S4.Authorisation of officers of State Tax or union Territory tax as proper officers in certain circumstances—

Module 20.S 7-interstate supply— S8-intra state supply— S9 supplies in territorial waters—S-10- Place of supply of goods other than supply of goods imported in to or exported from India. S*11- Place of supply of goods imported in to or exported from India S.12: Place of supply of services where location of supplier and recipient is in India. S.13—Place of supply of services where location of supplier or location of recipient is outside India.

Module 21.S14.Special provision for payment of tax by a supplier of online information and database access or retrieval services



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Module 22,S15.Refund of integrated tax paid on supply of goods to tourist leaving India. S16.

Zero rated supply --S17:Apportionment of tax and settlement of funds

Module 23,S18:Transfer of input tax credit S19:Tax wrongly collected and paid to central government or state government.

10.Income Tax Act and Rules :

Module 1,Short Title , Extent, Commencement

Module 2, Definition – Assessee, Assessment Year, Person,(Individual, HUF, Firms, Companies, AOP/BOI, Local Authority, Every Artificial Juridical person)Previous Year - Capital -Assets - transfer-

Module 3,Heads of Income – Gross Total Income, Deductions, Total Income, Agricultural Income, Aggregate Income- (80c)-Income Tax Rates – Slab Rate, Flat Rate, Special Rates, Scope of Total Income – Residential Status-Calculation of tax – Rebate on Agricultural Income.-

Module 4, Charging Section – Regular Tax Rates, Tax Deducted / Collected at Source, Advance Tax, Self-Assessment of Tax - Processing of Returns of Income. -Heads of Income – 1 Salary 2 House Property 3. Business or Profession 4 Capital Gains 5 Other Sources- Exemptions.

11.ESI – Registration, Calculation, Contribution, Filing – Salary Statement.

12.PF – Registration, Rates of Contribution and Calculation, PF Statement – Filing details, Salary Statement, TDS etc.

13. TALLY ERP-9 SYLLABUS

Meaning of Accounting –Definition of Accounting- Features of accounting-objectives of accounting-Book keeping and accounting- Advantages and limitations of accounting.



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MODULE -1 Introduction to Accounting Definition – Types of Accounts – Classification of Accounts Rules of Accounting – Journal – Ledger – Journalizing - Ledger posting – Balancing – Trial balance, Final Accounts, Final Accounts with Adjustments. Introduction to computerized accounting: computerized accounting Vs. Manual accounting -Tally 9-Features of Tally-Screen components -Creation of company – selecting a company – altering/ modifying company creation details –deleting a company – F11 Features- F 12 configuration

MODULE-2 Accounts and Vouchers –Account groups: – Pre defined groups creating single & multiple groups - creation of primary account groups – creating ledger accounts in single &multiple – displaying, altering and deleting account groups and ledgers – Accounting vouchers – entering transactions in accounting vouchers – bill wise details – altering and deleting a voucher entry – creating new voucher types – modifying an existing voucher – bank reconciliation statement –balance sheet – profit and loss account – trial balance – day books – account books – statement of accounts – list of accounts

MODULE -3 Voucher Type:- Type of vouchers –Creating/Customizing new voucher type-Displaying voucher type-Alerting voucher type-Deletion of voucher type

MODULE -4 Accounts with inventory: – Enabling F11 and F12 – stock category – stock group – single / multiple creation of stock category and stock group – creation of units of measurement – creating single / multiple stock items – creating godowns – displaying, altering and deleting stock groups, units, items and godowns – cost categories – cost centers – creating cost categories and cost centers – displaying, altering and deleting cost categories and cost centers – purchase / sales orders – inventory vouchers – using inventory vouchers – using accounting vouchers with inventory details (invoice mode) – inventory reports – stock summary – inventory books – statement of inventory.



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MODULE-5 Introduction of GST- CGST, SGST, IGST, Activating GST, GST ledgers, party ledger creation with GST, Purchase (Inward Supply) & sales (Outward Supply) under GST

MODULE-6 Manufacturing, budget and currency: - Manufacturing- Bill of Materials- Manufacturing Journal-Cost estimates-Budget-type of budget-Budget creation -Alteration and Deletion of budget- Currency creation Adjustment of forex gain/loss- Creation of journal voucher class for forex gain/loss.

MODULE-7 - Final Accounts Reports:- Profit and loss account-Balance sheet- Trial balance- daybook-Account book- Statement of accounts- Tax report.

MODULE -8. E-Return Filing-GST & Income Tax

Mode of Evaluation:- A written examination will be conducted by NCVRT,N.Delhi, at the end of the course and a certificate of merit will be issued.



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DEPARTMENT OF COMMERCE SKILL ENHANCEMENT TRAINING PROGRAMME SYLLABUS

Lecture Hours per week: 01
Total Hours: 32

Internal: 10

External: 40

Examination: 2 Hours

Objectives:

- To provide comprehensive tutorial in MS Office programs- Word, Excel and PowerPoint
- To familiarize the students with the concept of Accounting, Entrepreneurship and statistical inferences
- To impart hands on training in Accounting, Entrepreneurship and hypothesis testing

Course Outcome:

- Upon the completion of the course students will be able to use MS office programs- Word, Excel & PowerPoint.
- Students will be able to analyse financial statements.

Course Content:

Module I: **Basic applications of MS Office2010: MS Word-** Basic Editing and Formatting, Page formatting, inserting pictures and table of contents-**MS Excel-** Opening a Blank or New Workbook, Main Functions: Home, Insert, Page Layout, Formulas, Working with Data: Entering, Editing, Copy, Cut, Paste, Paste Special, Manipulating Data using Data Names and Ranges, Filters and Sort, Using and Formatting Tables, Basic Formulas and Use of Functions, Data Analysis Using Charts and Graphs, **MS PowerPoint-**Creating a Basic Presentation, Working with Text, Charts, Graphs, & Tables

08 Hours



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Module II: **Analyzing financial statements of companies** – finding interpretations using IFRS – Using actual financial statements of Indian Companies (IAS 1,8, 10)(IFRS 9,32) Overview and practical analysis training- Financial statement Analysis of Banking Companies – **practical approach using actual financial statements**- Financial statement Analysis of Insurance Companies - practical approach using actual financial statements

08 Hours

Module III: **Entrepreneur and Fundamentals of entrepreneurship:** Entrepreneur & Entrepreneurship-meaning-definition-Types- Experiential learning through different entrepreneurship Groups like WEN (Women Entrepreneur Network) - Role of entrepreneur in economic development. **Entrepreneurship Practicum:** Producing and marketing of a product in collaboration with MSME, digital marketing.

08 Hours

Module IV: **Measurement of data** – variables – attributes – process of measurement- errors in measurement. **Data processing and presentation**- Editing- classification – coding-tabulation- analysis of data- Inferential analysis- Hypothesis testing – Parametric and Non-Parametric testing

08 Hours



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DEPARTMENT OF COMMERCE

ACCA

SYLLABUS

Course Outcome

- The ACCA Course or Qualification is offered globally by the Association of Chartered Certified Accountants of UK, a global body for professional accountants. ACCA aims to offer business-relevant, first choice qualifications to people of application, ability and ambition globally who seek a rewarding career in accountancy, finance and management.
- ACCA is a globally-recognized accounting qualification that provides a strong foundation to students and professionals for careers in Accounting, Tax Consulting, Auditing, Business Valuation, Treasury Management etc.
- In this course, students learn major topics include Chartered accounting, Financial accounting, Risk management, Working Capital management, Mergers and acquisitions, Maintaining chartered accounts, and Business Valuation.
- By pursuing the ACCA course, you get access to opportunities all over the world. As it is a globally recognized accountancy organization, acquiring this qualification is a great way to build a career in accountancy and finance.
- ACCA members can work in sectors like audit and assurance, business development, business restructuring, commercial finance, compliance and risk, consulting and advisory, corporate and business accounting, corporate finance, cyber security, education and training, finance and administration, investor relations, leadership, project management, support services, tax, treasury, etc.

SYLLABUS

ACCA Total Exams to Qualify: 13

Exemption Possible for B.Com : Upto 6 Papers (Subject to ACCA review & accreditation of syllabus) Globalfti will support in this process completely.

Note: Syllabus modification may be required to get 80% coverage of ACCA syllabus for obtaining exemptions. Globalfti will review the B.Com syllabus and provide a report on required changes.

Remaining Papers Student has to write ACCA Exams & Pass: 7




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Non-Exempted ACCA Paper Names:

1] Financial Reporting [FR]

The conceptual and regulatory framework for financial reporting

1. The need for a conceptual framework and the characteristics of useful information
2. Recognition and measurement
3. Regulatory framework
4. The concepts and principles of groups and consolidated financial statements

A. Accounting for transactions in financial statements

1. Tangible non-current assets
2. Intangible assets
3. Impairment of assets
4. Inventory and biological assets
5. Financial instruments
6. Leasing
7. Provisions and events after the reporting period
8. Taxation
9. Reporting financial performance
10. Revenue
11. Government grants
12. Foreign currency transactions

B. Analysing and interpreting the financial statements of single entities and groups

1. Limitations of financial statements
2. Calculation and interpretation of accounting ratios and trends to address users' and stakeholders' needs
3. Limitations of interpretation techniques
4. Specialised, not-for-profit, and public sector entities

C. Preparation of financial statements

1. Preparation of single entity financial statements
2. Preparation of consolidated financial statements including an associate

2] Audit & Assurance [AA]

Audit framework and regulation

1. The concept of audit and other assurance engagements
2. External audits
3. Corporate governance
4. Professional ethics and ACCA's Code of Ethics and Conduct



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A. Planning and risk assessment

1. Obtaining, accepting and continuing audit engagements
2. Objective and general principles
3. Assessing audit risks
4. Understanding the entity and its environment
5. Fraud, laws and regulations
6. Audit planning and documentation

B. Internal control

1. Internal control systems
2. The use and evaluation of internal control systems by auditors
3. Tests of controls
4. Communication on internal control
5. Internal audit and governance and the differences between external audit and internal audit
6. The scope of the internal audit function, outsourcing and internal audit assignments

C. Audit evidence

1. Financial statement assertions and audit evidence
2. Audit procedures
3. Audit sampling and other means of testing
4. The audit of specific items
5. Automated tools and techniques
6. The work of others
- 7 Not-for-profit organisations

D. Review and reporting

1. Subsequent events
2. Going concern
3. Written representations
4. Audit finalisation and the final review
5. The Independent Auditor's Report

3] Financial Management [FM]

Financial management function

1. The nature and purpose of financial management
2. Financial objectives and relationship with corporate strategy
3. Stakeholders and impact on corporate objectives
4. Financial and other objectives in not-for profit organisations



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- A. Financial management environment
 - 1. The economic environment for business
 - 2. The nature and role of financial markets and institutions
 - 3. The nature and role of money markets
- B. Working capital management
 - 1. The nature, elements and importance of working capital
 - 2. Management of inventories, accounts receivable, accounts payable and cash
 - 3. Determining working capital needs and funding strategies
- C. Investment appraisal
 - 1. Investment appraisal techniques
 - 2. Allowing for inflation and taxation in DCF
 - 3. Adjusting for risk and uncertainty in investment appraisal
 - 4. Specific investment decisions (lease or buy, asset replacement, capital rationing)
- D. Business finance
 - 1. Sources of, and raising, business finance
 - 2. Estimating the cost of capital
 - 3. Sources of finance and their relative costs
 - 4. Capital structure theories and practical considerations
 - 5. Finance for small- and medium-sized entities (SMEs)
- E. Business valuations
 - 1. Nature and purpose of the valuation of business and financial assets
 - 2. Models for the valuation of shares
 - 3. The valuation of debt and other financial assets
 - 4. Efficient market hypothesis (EMH) and practical considerations in the valuation of shares
- F. Risk management
 - 1. The nature and types of risk and approaches to risk management
 - 2. Causes of exchange rate differences and interest rate fluctuations
 - 3. Hedging techniques for foreign currency risk
 - 4. Hedging techniques for interest rate risk
- 4] Strategic Business Reporting [SBR]
 - Fundamental ethical and professional principles
 - 1. Professional behaviour and compliance with accounting standards
 - 2. Ethical requirements of corporate reporting and the consequences of unethical behaviour



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- A. The financial reporting framework
1. The applications, strengths and weaknesses of the accounting framework
- B. Reporting the financial performance of a range of entities
1. Revenue
 2. Non-current assets
 3. Financial instruments
 4. Leases
 5. Employee benefits
 6. Income taxes
 7. Provisions, contingencies and events after the reporting date
 8. Share-based payment
 9. Fair Value Measurement
 10. Reporting requirements of small and medium-sized entities (SMEs)
 11. Other reporting issues
- C. Financial statements of groups of entities
1. Group accounting including statements of cash flows
 2. Associates and joint arrangements
 3. Changes in group structures
 4. Foreign transactions and entities
- D. Interpret financial statements for different stakeholders
1. Analysis and interpretation of financial information and measurement of performance
- E. The impact of changes and potential changes in accounting regulation
1. Discussion of solutions to current issues in financial reporting
- 5] Strategic Business Leader [SBL]
- Leadership
1. Qualities of leadership
 2. Leadership and organisational culture
 3. Professionalism, ethical codes and the public interest
- A. Governance
1. Agency
 2. Stakeholder analysis and organisational social responsibility
 3. Governance scope and approaches
 4. Reporting to stakeholders
 5. The board of directors
 6. Public sector governance



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B. Strategy

1. Concepts of strategy
2. Environmental issues
3. Competitive forces
4. The internal resources, capabilities and competences of an organisation
5. Strategic choices

C. Risk

1. Identification, assessment and measurement of risk
2. Managing, monitoring and mitigating risk

D. Technology and data analytics

1. Cloud and mobile technology
2. Big data and data analytics
3. E- business: value chain
4. IT systems security and control

E. Organisational control and audit

1. Management and internal control systems
2. Audit and compliance
3. Internal control and management reporting

F. Finance in planning and decision-making

1. Finance function
2. Financial analysis and decision- making techniques
3. Cost and management accounting

G. Innovation, performance excellence and change management

1. Enabling success: organising
2. Enabling success: disruptive technologies
3. Enabling success: talent management
4. Enabling success: performance excellence
5. Managing strategic change
6. Innovation and change management
7. Leading and managing projects

H. Professional skills

1. Communication
2. Commercial acumen
3. Analysis
4. Scepticism
5. Evaluation



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6] Advanced Audit & Assurance [AAA]

Regulatory Environment

1. International regulatory frameworks for audit and assurance services
2. Money laundering
3. Laws and regulations

A. Professional and Ethical Considerations

1. Code of Ethics for Professional Accountants
2. Fraud and error
3. Professional liability

B. Quality Control and Practice Management

1. Quality control (firm-wide)
2. Advertising, tendering and obtaining professional work and fees
3. Professional appointments

C. Planning and conducting an audit of historical financial information

1. Planning, materiality and assessing the risk of material misstatement
2. Evidence and testing considerations
3. Audit procedures and obtaining evidence
4. Using the work of others
5. Group audits

D. Completion, review and reporting

1. Subsequent events and going concern
2. Completion and final review
3. Auditor's reports
4. Reports to those charged with governance and management

E. Other assignments

1. Audit-related and assurance services
2. Specific assignments
3. The audit of social, environmental and integrated reporting
4. The audit of performance information (pre-determined objectives) in the public sector
5. Reporting on other assignments

F. Current Issues and Developments

1. Professional and ethical developments
2. Other current issues



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7] Advanced Financial Management [AFM]

A. Role of senior financial adviser in the multinational organisation

1. The role and responsibility of senior financial executive/advisor
2. Financial strategy formulation
3. Ethical and governance issues
4. Management of international trade and finance
5. Strategic business and financial planning for multinational organisations
6. Dividend policy in multinationals and transfer pricing

B. Advanced investment appraisal

1. Discounted cash flow techniques
2. Application of option pricing theory in investment decisions
3. Impact of financing on investment decisions and adjusted present values
4. Valuation and the use of free cash flows
5. International investment and financing decisions

C. Acquisitions and mergers

1. Acquisitions and mergers versus other growth strategies
2. Valuation for acquisitions and mergers
3. Regulatory framework and processes
4. Financing acquisitions and mergers

D. Corporate reconstruction and reorganisation

1. Financial reconstruction
2. Business re-organisation

E. Treasury and advanced risk management techniques

1. The role of the treasury function in multinationals
2. The use of financial derivatives to hedge against forex risk
3. The use of financial derivatives to hedge against interest rate risk

Mode of Evaluation:

Online Exams ACCA authorized



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DEPARTMENT OF COMMERCE

CMA

SYLLABUS

Certified Management Accountant (US)

Title of the proposed course : Certified Management Accountant (CMA US)

Duration (specify hours too) : 2 years

Course offered by : Institute of Management Accountant (IMA US)

Name & designation of the coordinator : Sreevidya A

Details of collaboration, if any : Nil

Course fee : Rs.44,870/-

No. of participants expected : 40 nos

Course Outcomes

1. Gold-Standard in Management Accounting

CMA is a much-respected designation in the corporate accounting world. CMA is an advanced professional certification specifically designed to measure the critical accounting and financial management skills.

2. Globally Accepted Management Accounting Certification

CMA is the most popular management accounting certification worldwide.

3. Better Salary

Let's face it — we want to learn, but ultimately, we need the certification to get better-paid jobs. According to IMA, CMA holders earn 33% more than their non-certified peers.

4. CMA Skills are More Practical

80% of accountants end up in non-public accounting. The management accounting knowledge and skill is in fact more useful for these professionals. In fact, many dual CPA and CMA holders find the materials covered in CMA more interesting and practical in their daily work.

5. IMA Makes it Easy for Us

IMA (the CMA exam administrator) make things clear, simple and organized for applicants. IMA openly welcomes international candidates with the exam offered in hundreds of locations worldwide. IMA update the syllabus based on job analysis and the entire qualification is created is based on Management Accounting Comprehensive framework.

80% of CMA agrees it's a qualification for them move across the areas of business i.e they can work in accounting, Finance, IT, operations, Management decision making Investment decision etc. 33% of CMA s work as CEO, CFOs and Controllers, 22% as Directors & Managers, 34% of them as Accountants & Analysts and 11% as Consultants, Practitioners & Academicians.



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CMA candidates can focus on passing the exam, instead of getting stuck the bureaucracy and conflicting rules from different State Boards.

The below mentioned fortune 500 companies are known to have CMAs in their key management roles:

3M

Alcoa

AT&T

Bank of America

Boeing

Cargill

Caterpillar

ConAgra

Hewlett-Packard

Johnson & Johnson

Microsoft

Procter & Gamble

KeyCorp

Whirlpool

Saudi Aramco

Verizon

Xerox



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SYLLABUS

CMA exam consists of two parts: -

1. Financial Planning, Performance and Analytics

(Exam format: - 4 hours –100 objective type and 2 descriptive type questions)

<input type="checkbox"/> External Financial Reporting	15%
<input type="checkbox"/> Planning, Budgeting and Forecasting	20%
<input type="checkbox"/> Performance Management	20%
<input type="checkbox"/> Cost Management	15%
<input type="checkbox"/> Internal Controls	15%
<input type="checkbox"/> Technology and Analytics	15%

2. Strategic Financial Management

(Exam format: - 4 hours –100 objective type and 2 descriptive type questions)

<input type="checkbox"/> Financial Statement Analysis	20%
<input type="checkbox"/> Corporate Finance	20%
<input type="checkbox"/> Decision Analysis	25%
<input type="checkbox"/> Risk Management	10%
<input type="checkbox"/> Investment Decisions	10%
<input type="checkbox"/> Professional Ethics	15%

Mode of Evaluation:

Online Exams IMA authorized



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DEPARTMENT OF COMMERCE SOFT SKILLS FOR PERSONAL DEVELOPMENT SYLLABUS

Title of the proposed course : Soft Skills for Personal Development
Duration (specify hours too) : 1 year; 60hours course
Course offered by : Commerce Department
Name & designation of the coordinator :
Course fee : Rs.2000
Details of collaboration, if any : Nil
No. of participants expected : 30 nos

Course Outcomes

- 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 content

MODULE I: Attitude setting – Professionalism and Personalism – Success secrets – Girl to Women Empowerment – NLP – Thought Engineering.

MODULE II: English success –Fluency training – Grammar grooming – Words to talk – Pronunciation mastering.

MODULE III: Facing interview – Public speaking – Group Discussion training – Micro presentation – Personality development

Mode of Evaluation: Written and Practical Examination



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DEPARTMENT OF COMMERCE

TALLY WITH GST

SYLLABUS

Title of the proposed course	: Tally with GST (Course code:com-1328)
Duration (specify hours too)	: 50 Hours (Spread over the academic Year)
Course offered by	: NCVRT New Delhi (www.ncvrtindia.org)
Name & designation of the coordinator:	S. Omanakuttan
Course fee	: Rs.3,500 Tuition Fee + Rs.1,500 Registration & Exam Fee
Details of collaboration, if any	: Nil
No. of participants expected	: 40Nos

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.

SYLLABUS

TALLY ERP-9 SYLLABUS:

Meaning of Accounting –Definition of Accounting- Features of accounting-objectives of accounting-Book keeping and accounting- Advantages and limitations of accounting.

MODULE -1 Introduction to Accounting Definition – Types of Accounts – Classification of Accounts Rules of Accounting – Journal – Ledger – Journalizing - Ledger posting – Balancing – Trial balance, Final Accounts, Final Accounts with Adjustments. Introduction to computerized accounting: computerized accounting Vs. Manual accounting-Tally 9- Features of Tally-Screen components-Creation of company – selecting a company – altering / modifying company creation details – deleting a company – F11 Features- F 12 configuration

MODULE-2 Accounts and Vouchers –Account groups: – Pre defined groups creating single & multiple groups - creation of primary account groups – creating ledger accounts in single &multiple – displaying, altering and deleting account groups and ledgers – Accounting vouchers – entering transactions in accounting vouchers – bill wise details – altering and deleting a voucher entry – creating new voucher types – modifying an existing voucher – bank reconciliation statement –balance sheet – profit and loss account – trial balance – day books – account books – statement of accounts – list of accounts



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MODULE -3 Voucher Type:- Type of vouchers –Creating/Customizing new voucher type-Displaying voucher type-Alerting voucher type-Deletion of voucher type

MODULE -4 Accounts with inventory:- Enabling F11 and F12 – stock category – stock group – single / multiple creation of stock category and stock group – creation of units of measurement – creating single / multiple stock items – creating godowns – displaying, altering and deleting stock groups, units, items and godowns – cost categories – cost centers – creating cost categories and cost centers – displaying, altering and deleting cost categories and cost centers – purchase / sales orders – inventory vouchers – using inventory vouchers – using accounting vouchers with inventory details (invoice mode) – inventory reports – stock summary – inventory books – statement of inventory.

MODULE-5 Introduction of GST- CGST, SGST, IGST, Activating GST, GST ledgers, party ledger creation with GST, Purchase (Inward Supply) & sales (Outward Supply) under GST

MODULE-6 Manufacturing, budget and currency: - Manufacturing- Bill of Materials- Manufacturing Journal-Cost estimates-Budget-type of budget-Budget creation -Alteration and Deletion of budget- Currency creation -Adjustment of forex gain/loss- Creation of journal voucher class for forex gain/loss.

MODULE-7 - Final Accounts Reports:- Profit and loss account-Balance sheet- Trial balance-daybook-Account book- Statement of accounts- Tax report.

MODULE -8. E-Return Filing-VAT:

Syllabus of GST:

Introduction: KGST Act 1963 & Rules – Historical data- need for the introduction of VAT system in India -- Single point tax,-- points of levy-- schedules in KGST- ST, AST,-- Surcharge, Forms-- Goods and Service Tax: Difference between direct and indirect tax --single point Tax system and multi point Tax system--.

Introduction to GST-- Constitutional Amendment for GST --- objectives-- understanding the concept of GST-- subsuming of multiple taxes in the present system -- salient features of GST -- destination based Tax -- dual GST to be levied by the Centre and State simultaneously -- CGST-SGST(UTGST)-IGST-- Advantages of GST-- Difference between direct and indirect tax --single point Tax system and multi point Tax system--.

9.Section wise analysis of GST (with related Rules and Forms)

Module 1. S1 Short title- extent and commencement—S2 Definitions : Aggregate turn over – business--business vertical-input tax -- out put tax – inward supply –outward supply-- composite supply--mixed supply --consideration-- input service distributor – input service-- nonresident taxable person – reverse charge-- tax return preparer--credit note, debit note, exempt supply-- export of goods,--export of service, IGST, import of goods-- import of service-- input service – input service distributor-- input tax-input tax credit- inward supply-- place of supply-- outward supply--continuous supply of goods-service-reverse charge-zero rated supply,--works contract—



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Module 2.S3 Officers under this Act, --S4.appointment,--S5 powers etc.---

Module 3.S7.Levy & Collection: Supply --S8.tax liability on composite and mixed supplies S9.Charging Section-Reverse charge-levy and collection of tax-S10.Tax liability on composite and mixed supplies --Rules-GSTCMP 01 and all other forms-effective date of composition levy-conditions-validity-rate of composition.S11.Power to grant exemptions.

Module 4.Time and Value of Supply: S12-13-Time of Supply of goods/services --S14. Change in rate of tax in respect of supply of goods or services. S15. Value of taxable supply-

Module 5.Input Tax Credit: S16-Eligibility for input Tax credit-conditions for taking input tax credit S17 apportionment of credit and blocked credits S18. Availability of credit in special circumstances S19.taking input tax credit in respect of inputs and capital goods sent for job works. S20 Distribution of credit by input service distributor-

Module 6. Registration: S22-Persons liable for registration S23. Persons not liable for registration-S24. Compulsory registration in certain cases. S25. Procedure for registration S26.Deemed registration-S27.Special provisions relating to casual taxable persons and non resident taxable persons-S28. Amendment of registration- S29. Cancellation of registration-

Module 7. Tax Invoice, Debit and Credit Notes: S31-Tax invoice-S32 --Prohibition of unauthorized collection of tax- S33. Amount of tax to be indicated in tax invoice and other documents-- S34.Debit and Credit Notes, --,

Module 8.S35.Accounts and other records--36 Period of retention of accounts.---

Module 9>Returns: S37- Furnishing details of outward supplies.--S38.Furnishing details of inward supplies --S39.Submission of returns (R59) --S40.First Return-- S41 Claim of input tax credit and provisional acceptance thereof--S42.Matching, reversal and reclaim of input tax credit --S43. Matching, reversal and reclaim of output tax liability--S44 Annual return-- S45. final returns -- S46. Notice to return defaulters--S47 Lev of late fee-- S48 GST Practitioners--

Module 10. Payment of Tax: S49 Payment of tax, interest, penalty and other amounts--S50 interest on delayed payment of tax--S51- TDS-- S 52Collection of tax at source--S53. Transfer of input tax credit --

Module 11.S54 Refund---

Module 12.Assessment: S59-Self assessment-- S60 Provisional Assessment-- S61. Scrutiny of returns --S62. Assessment of non filers of return --S63 Assessment of unregistered persons --

Module 13.Audit: S65-Audit by tax authorities,--

Module 14.Inspection, Search, Seizure and Arrest S67Inspection,Search,seizure and arrest-- S68 inspection of goods in movement.-- S69. Power to arrest.-- S70 Power to summon persons to give evidence and produce documents-- S71. Access to business premises---



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Module 15. Demand and Recovery. S73 Determination of tax not paid or short paid -- S74 Determination of tax not paid or short paid by fraud--S76 Tax collected but not deposited to government --S79 Recovery of tax and procedure --

Module 16. S85 to S94 Liability to pay tax in certain cases --S95 to 106--Advance ruling --107-121-appeals and revision—

Module 17. S122--138 Offences and penalties.

Module 18. Integrated Goods and Services Tax Act 2017:

Module 19. S4. Authorisation of officers of State Tax or union Territory tax as proper officers in certain circumstances—

Module 20.

S 7-interstate supply— S8-intra state supply— S9 supplies in territorial waters—S-10-Place of supply of goods other than supply of goods imported in to or exported from India, S'11- Place of supply of goods imported in to or exported from India S.12: Place of supply of services where location of supplier and recipient is in India, S.13—Place of supply of services where location of supplier or location of recipient is outside India.

Module 21.

S14. Special provision for payment of tax by a supplier of online information and database access or retrieval services

Module 22.

S15. Refund of integrated tax paid on supply of goods to tourist leaving India.

S16. Zero rated supply --S17: Apportionment of tax and settlement of funds

Module 23.

S18: Transfer of input tax credit S19: Tax wrongly collected and paid to central government or state government.

Mode of Evaluation: - A written examination will be conducted by NCVRT, N.Delhi, at the end of the course and a certificate of merit will be issued.



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LIBRARY
INFORMATION RESOURCES & TECHNICAL WRITING
SYLLABUS

Course Outcome

- Students familiarise with primary and secondary information resources and methods of research.
- students understand and know the basic components and stages of technical writing

Course Content

Duration: 1 year

Module 1

Information Science: Definition, characteristics, types of information

Communication: Channel of Communication, Barriers in communication

IPR and Copyright Act

Anti-Plagiarism Software

Module 2: - Information management

Sources of Information: Primary, Secondary and Tertiary sources

Reference sources

Types of information

Documentary sources of information

Indexing and abstracting Journals

Module 3

Research methodology (Practical Information), Technical writing <Project/Article

E-Document, Databases -N list, Shodh Ganga, Open thesis, Content management, DOAJ, etc..

Reference management software – Mendeley (For Project work), Zotero, End Note, etc

Different User IDs Helpful for research

Module 4 (Practical)

Information Technology: Internet tricks & tips

E publishing Platforms: Website, blog, google forms, Google docs etc

Wikipedia editing and Publishing



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**CERTIFICATE COURSE ON GENDER SENSITIZATION
SYLLABUS**

Duration: 3 Months (30 hrs)

Level: Certificate Course

Course Outcomes

- To sensitize the students regarding the issues of gender inequalities prevailing in society.
- To illuminate the learners on the gender perspective
- To introduce gender sensitization and its challenges
- To encourage capacity building among the students to facilitate them to engage in policy decisions on gender issues in all fields of life

Course Content

Modules

1. Introduction to Gender Studies
Sex and Gender- Definition- Nature, Scope and various dimensions of gender
2. **Feminism-An outline**

Feminism and Patriarchy
Major Feminist Movements
Gender and Society
Man -Woman relationship
Women in Politics
3. LGBTQ
Sexuality, Gender and Identity
History of Sexuality Rights
Masculinity Studies
Queer Theory
LGBTQ Rights in India
4. Gender and Law
Gender and Labour
Women and Law
Women and Law
5. **Practical skills**

Film/Documentary Screening , Field Visits, Group discussion and debate,
Awareness Songs, Street plays, theatre and presentation skills with gender
themes
For personality development, TED talks to promote gender equality



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References

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Bhasin, Kamala. What is Patriarchy? Kali for Women, 1993

Bhasin, Kamala. Understanding Gender. Kali Publishers, 1999

Kannabiran, Kalpana. Women and Law: Critical Feminist Perspectives, Sage Series, 2014

Kannabiran, Vasanth. Taken at the Flood : A Memoir of a Political Life, Women Unlimited, 2020

Brunell, Laura; Burkett, Elinor. "Feminism". Encyclopaedia Britannica.

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Chatterjee, Mohini, Feminism and Gender Equality, Aavishkar, Jaipur, 2005

Menon, Nivedita (ed) Sexualities. Kali for Women, 2007

Bakshi, Kaustav & Rohit K Dasgupta, Queer Studies: Texts, Contexts, Praxis. Orient Black Swan, 2019

Halbertstam, Judith, Female Masculinity. Duke University Press, 1998

Films to Watch:

1. Shirley Valentine (1989) Dir: Lewis Gilbert
2. The Object of My Affection (1998) Dir: Nicholas Hytner
3. Kinsey (2004) Dir: Bill Condon
4. A Fantastic Woman (2017) Dir: Sebastián Lelio (Spanish)
5. Undertow (2009) Dir: Javier Fuentes-León (Spanish)



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