



Sri Sarada College for Women

(An Autonomous Institution)

(Reaccredited with “A” grade by NAAC)

Institution included u/s2 (f) and 12(B) of UGC

Affiliated to Manonmaniam Sundaranar University

(A branch of Sri Ramakrishna Tapovanam, Tirupparaithurai)

Ariyakulam, Tirunelveli Thoothukudi– High Road, Maharaja Nagar Post,

Tirunelveli-627011.




CRITERION-I


1.1 Curriculum Design and Development

1.3.2 Additional Information

2024-25


PRINCIPAL
SRI SARADA COLLEGE FOR WOMEN
(Autonomous)
TIRUNELVELI - 627 011




Coordinator - IQAC
Sri Sarada College for Women (Autonomous),
Tirunelveli-627 011



SRI SARADA COLLEGE FOR WOMEN (AN AUTONOMOUS INSTITUTION)



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(A branch of Sri Ramakrishna Tapovanam, Tirupparaithurai)

Ariyakulam, Thoothukudi NH, Maharaja Nagar Post,

TIRUNELVELI-627011

E-mail: srisaradatvl@gmail.com Website: www.srisaradacollege.org

S.No	UG I Year	
	Department	Title of the programme
1	Tamil	Folklore
2	Sanskrit	Science in Sanskrit
3	English	Soft skills
4	Economics	Fundamentals of Economics
5	Maths	Vedic Mathematics
6	Physics	Space Physics
7	Chemistry	Chemistry in Everyday Life
8	Computer Science	E- Learning
9	Computer Application	Virtual Reality
10	Information Technology	Web Designing
11	Commerce	Stock and Commodity Markets
12	Commerce CS	Home made Products
13	Business Administration	Co – operative Management


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Department of Tamil

நாட்டுப்புறவியல்

- அலகு - 1 நாட்டுப்புறவியல் - ஓர் அறிமுகம்
நாட்டுப்புறவியல் வரையறை - அறிஞர்கள் கூற்று - முன்னோடிகள் -
படைப்புகள் - தன்மைகள்
- அலகு - 2 நாட்டுப்புறவியலின் தோற்றமும் வளர்ச்சியும்
நாட்டுப்புற இலக்கியத்தின் தோற்றம் - வகைகள் - பாடல்கள் -
கதைகள் -
பழமொழிகள் - புதிர்கள் அல்லது விடுகதைகள்
- அலகு - 3 நாட்டுப்புறக்கலைகளும் விளையாட்டுகளும்
கரகாட்டம் - பொம்மலாட்டம் - வில்லுப்பாட்டு - ஓயிலாட்டம் -
கும்மியாட்டம் -
கோலாட்டம் - காவடியாட்டம் - சிலம்பாட்டம் - தப்பாட்டம் -
சடுகுடு -
உறியடித்தல் - பச்சைக்குதிரை தாண்டுதல் - பம்பரம் - எலியும்
பூனையும் - குலை
குலையா முந்திரிக்கா - கழற்சிக்காய் - கயிறு இழுத்தல் -
பூப்பறிக்க வருகிறோம்
- அலகு - 4 வழிபாடுகளும் நம்பிக்கைகளும்
சிறுதெய்வ வழிபாடு - பெண் தெய்வங்கள் - வழிபாட்டு முறை -
சடங்குகள் -
நம்பிக்கைகள்


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CERTIFICATE IN SCIENCE IN SANSKRIT

I. COURSE TITLE: SCIENCE IN SANSKRIT

II. OBJECTIVES:

- To create an adaptive 3D the virtual environment that meets the needs of trainee interpreters and those who need to learn about how to work with interpreters.
- To develop a range of interpreting scenarios (e.g. a business meeting room, a court room, a tourist office, a community centre) that can be run in different modes ("interpreting practice", "exploration" and "live");

III. OUTCOME OF THE COURSE

- Virtual Reality is something that allows everyone to experience the impossible.
- Virtual Reality is the term used to describe a three-dimensional, computer-generated environment which can be explored and interacted by a person.

IV. SYLLABUS:

Unit - I

Introduction to Ancient Indian Astronomy, Astrology and Mathematics concepts in Sanskrit Language

Unit - II

Introduction to Ancient Indian Architecture and Art and Culture concepts in Sanskrit Language

Unit - III

Introduction to Ancient Indian Medicine and cosmetics concepts in Sanskrit Language

Unit - IV

Introduction to Ancient Indian Aeronautics and yoga concepts in Sanskrit Language

Unit - V

Introduction to Ancient Indian Athasastres, Scientific and Phonetics concepts in Sanskrit Language

V. Reference Book:

S. No	Title of the Book	Author's	Year of [Edn]	Publications
1.	'Foundations of sensation and perception	George <u>guthrie</u>	Third Edition, 2016	Psychology <u>press</u> , New Delhi
2	Fundamentals of Computer Graphics	Steve <u>Marchschner</u> , Peter Shirley	Third Edition 2016	CRC <u>press</u> , New Delhi

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
Assignment = 5 marks	Section B- 5 out of 8 (4 marks) = 20 marks
Quiz = 5 marks	Section C- 3 out of 5 (10 marks) = 30 marks
Field Visit/ Case Study - Record = 10 marks	



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CERTIFICATE IN SOFTSKILL

I. COURSE TITLE: SOFTSKILL

II. OBJECTIVES:

- To give each student realistic perspective of work and work expectations
- To guide students in making appropriate and responsible decisions
- To create a desire to fulfill individual goals.

III. OUTCOME OF THE COURSE

- The students can enhance career opportunities
- The students get the accuracy, efficiency in writing
- The students can gain confidence and high self-esteem

IV. SYLLABUS:

Language Skills: ~~LSRW Types~~ and Process of Communication, Strategies of Communication, Barriers to Communication, Body Language.

UNIT - II

Interview Skills: Extempore, Power Point Presentation, Public speaking, Group discussion, Debate, Panel discussion, Types of interview, Dress code, mock interview.

UNIT - III

Writing Skills: Professional Resume', Letters: Application, Acceptance, Denial & complaint, Statement of Purpose (SOP), Report, Proposal, Writing in the social media, Agenda, Minutes, Book review, Film review.

UNIT - IV

Personality Development: Goal setting, Self Confidence, Positive Thinking, Team Building, Leadership Skills, Time Management, Stress Management, Decision making, creative thinking.

UNIT - V

Preparation for Competitive Examinations: Reasoning: Number series, blood relations, directions, finding the next numbers, missing letters & odd one.

Current Affairs: Regional, national & international events, Geographical, political and historical facts Analogy

V. Reference Book:

S.No	Title of the Book	Author's	Year of [Edn]	Publications
1.	Developing Communication Skills	Krishna Mohan & Meera Banerji	II Ed., 2009	Laxmi Publications
2.	Mastering Communication Skills and Soft Skills	N. Krishnaswamy	I Ed., 2015	Bloomsbury India
3.	Communication Skills for Dummies	Elizabeth Kuhnke	I Ed., 2012	John Wiley & Sons; UK edition

VI. Eligibility for Admission

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VII. Duration of the Course:

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CERTIFICATE IN FUNDAMENTALS OF ECONOMICS

I. COURSE TITLE: FUNDAMENTALS OF ECONOMICS

II. OBJECTIVES:

- To acquire new Economic information and analytical skills.
- To write small economics essays in clear and concise fashion with emphasis on content style and clear analytical rigor.
- To organize and present ideas and information orally.
- To design and carry out independent and collaborative projects

III. OUTCOME OF THE COURSE

- Students can study scope of economics.
- Students can understand the factors of production.
- The students know the functions of money.
- The students can analyse the globalization in India.

IV. SYLLABUS:

UNIT-I Introduction to Economics:

Meaning and scope of Economics – Basic concepts in Economics – Human wants – goods – Utility – Value – Price – Income – Wealth – Welfare – Market – Supply – Demand – Cost – Revenue – Capital .

UNIT-II Consumption:

Meaning of the terms – Consumer – Consumption – Producer – Production – Factors of production – Utility maximization

UNIT-III Evolution of Money:

Barter System – Meaning and Definitions of Money – Functions of money – Qualities of good money – Kinds of money

UNIT-IV Introduction to Statistics:

Definition of Statistics – Features – Significance – Functions – Limitations

UNIT- V Inflation and Deflation:

Meaning of Inflation and Deflation, Recent Trends in India's Foreign Trade - Globalization in India

V. Text Book

S.No.	Title	Author/s	Year (Edn)	Publisher's
1.	Statistics	R.S.N. Pillai Bagavathi	2016 (8)	S.Chand & Company Pvt. Ltd New Delhi.

VI. Reference Book:

S.No.	Title	Author/s	Year (Edn)	Publisher's
1.	Micro Economics	M. John Kennedy	2001 (2)	Himalaya Publishing House

VII. Eligibility for Admission

Minimum +2 (open to all on their options)

VIII. Duration of the Course:

30 hours (1 semester)

IX. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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CERTIFICATE IN VEDIC MATHEMATICS

I. COURSE TITLE: VEDIC MATHEMATICS

II. OBJECTIVES:

- Develops Creativity
- Improves Memory and Retention
- Better Performances in Competitive Exams.

III. OUTCOME OF THE COURSE

- increase accuracy and reduces mistakes
- Sharpens the mind, increases mental agility and intelligence.
- simplify and speed up calculations in Arithmetic, Algebra and even Trigonometry

IV. SYLLABUS:

Unit - I

Multiplication of 2 digit, 3 digit and 4 digit numbers using

- Gomutrika Bidhi (Zig-Zag Method)
- Bargana Bidhi (Square Method)
- Nikhilam Bidhi (Universal)
- Urdhva - Dvayam Bidhi (Up and Cross)

Unit - II

Square of two digit numbers using Anurupya Sutra (Ratio Method)

Unit - III

Cube of two digit numbers using Anurupya Bidhi

Unit - IV

Square root of a number using

- Vilokana Bidhi (Analysis Method)
- Bhag Bidhi (Division Method)

Unit - V

Two digit and three digit cube root of a number using Vilokana Bidhi (Analysis)

V. Reference Book:

S. No	Title of the Book	Author's	Year of [Eds]	Publications
1.	'Vedic Mathematics'.	by Dr. V.S. Narasimman and C. <u>Mavilyahanan.</u>	II Ed., 2009	Laxmi Publications

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

30 hours (1 semester)

VIII. Examination/ Evaluation Components

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CERTIFICATE IN SPACE PHYSICS

I. COURSE TITLE: SPACE PHYSICS

II. OBJECTIVES:

- To acquire knowledge about constellations.
- To get idea about comets, meteors, and asteroids
- To get basic knowledge on solar flares.

III. OUTCOME OF THE COURSE

- Be able to understand about periodic comets.
- Understand the activity of a star—the Sun—and the stars

IV. SYLLABUS:

UNIT-I: UNIVERSE

Planets - extra solar planets - star and star clusters - supernovae - black holes - galaxy 3 - bang - van allen belts - aurora.

UNIT-II: COMETS, METEORS, ASTEROIDS

Composition and structure of comets - periodic comets - salient features of asteroids, meteors - uses.

UNIT-III: SUN

Structure of photosphere, chromospheres, corona - sunspots, sun flares - satellite of planets - structure, phase, features of moon.

UNIT-IV: STARS

Constellations - binary stars - origin and types - types of galaxies - black hole and worm holes introduction - supernovas and neutrons stars.

UNIT-V: ORIGIN OF UNIVERSE

The beginning of life - big bang theory - pulsating theory - steady state theory - composition of universe expansion

V. Text Book

S.No.	Title	Author/s	Year(Edn)	Publisher/s
1.	Satellite Operations,	John T. Garney and Malcolm Jones	1990.	S.Chand & Company Pvt Ltd, New Delhi.

VI. Reference Book:

S.No.	Title	Author/s	Year(Edn)	Publisher/s
1.	Fundamentals of Space Systems	V. L. Pisacane and R.C. Moore.	1994	Oxford University Press,
2	Encyclopedia of space, Heather Couper.	Dorling Kindersley,	2009	Nigal henbest Publisher
3	Concepts in Space Science,	Edited by P.R.Daniel	2009.	

VII. Eligibility for Admission

Minimum +2 (open to all on their options)

VIII. Duration of the Course:

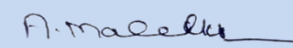
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CERTIFICATE IN CHEMISTRY IN EVERYDAY LIFE

I. COURSE TITLE: CHEMISTRY IN EVERYDAY LIFE

II. OBJECTIVES:

- To establish in very simple terms the place of chemistry in modern life.
- To learn about water, water pollution and its treatment
- To acquire basic knowledge of fertilizers and insecticides.
- To learn about the polymer and its applications.
- To acquire basic knowledge of drugs

III. OUTCOME OF THE COURSE

- On the completion of the course the student will be able to
- Know the standard water quality parameters for drinking water
- Get idea about the natural and artificial manures
- Acquire the knowledge about polymers
- Get acquire the knowledge about soaps and detergents
- Know the medicines used in day to day life.

IV. SYLLABUS:

UNIT - I: Water

Electrolysis of water – water cycle – air in water – DO – BOD – COD – water pollution – control of water pollution – water treatment – Reverse osmosis – ~~deioniser~~ – ~~Hydroscopy~~ and deliquescence – water in crystals – efflorescence – hard water – soft water – permanent and temporary hardness – removal of hardness – advantage and disadvantage – potable water – standards for drinking water.

UNIT - II: Fertilizers and Insecticides

Classification of fertilizers – natural manures – artificial manures – chemical fertilizers – advantages of artificial fertilizers – bio-fertilizers – insecticides – inorganic insecticides – natural or plant insecticides – organic insecticides – dinitro phenols, DDT, methoxychlor, BHC – pesticides – disadvantages – bio-pesticide – blue green algae, vermicompost

UNIT - III: Polymers and Modern materials

~~Fibres~~ Natural and synthetic ~~Fibres~~ – cotton, wool, coir, silk, linen, polyester, viscose ~~rayon~~ Synthetic polymer – organic polymer – inorganic polymer – silicon based polymer and its uses – conducting polymer – biodegradable polymers.

Resins: phenol- formaldehyde resins – resins on protective coatings – household appliances – PVC- HDPE-LDPE- Teflon- natural rubber – vulcanization – recycled plastics – medical applications of polymers.

UNIT-IV: Industrial products

Soaps and detergents – an elementary idea of soaps and detergents, cleansing action of soaps and detergents, advantages of detergents over soaps. Cement and glass: Portland cement, glass- definition, types and uses. Lubricants- classification - criteria of good lubricating oils. Abrasives and refractories – definition, classification and uses.

UNIT-V: Drugs

Definition- chemotherapy- antibiotics, ~~anesthetics~~, analgesic, antipyretic and anti inflammatory, antiseptics and disinfectants

V. Reference Books:

S.No	Title of the Book	Author's	Year (Edn)	Publisher's
1	Textbook of Polymer Science	F.N. Billmeyer	2010	John Wiley Ltd, New Delhi
2	A text book of Pharmaceutical Chemistry	Jeyashree Gosh	2014	S. Chand and Company, New Delhi
3	Industrial Chemistry	B. K. Sharma	2011 (16)	Goel Publishing House, Meerut
4	Water Pollution	P.K. Goel	2006	New Age International (p) Ltd New Delhi

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:

30 hours (1 semester)

VII. Examination/ Evaluation Components

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Field Visit/ Case Study – Record = 10 marks	

Kamala
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CERTIFICATE IN E-LEARNING

I. COURSE TITLE: E-LEARNING

II. OBJECTIVES:

1. Enhance the quality of learning and teaching.
2. Improve the efficiency of the students
3. Improve user accessibility and time flexibility.
4. Create an active platform for learning.
5. Create and communicate new training policies concepts and ideas.

III. OUTCOME OF THE COURSE

1. Provides online learners with a clear path to success.
2. Personalize the E-learning experience.
3. Allows for self-paced learning
4. Promotes active participation
5. Gives ability to track progress and identify strength and weakness for the online learners.

IV. SYLLABUS:

UNIT	DETAILED SYLLABUS
1	E-Learning Evolution - Advantages and Disadvantages of E-Learning - Instructional design Models for E-Learning -Applying User-Centered Design to E- Learning - Methods and Measures to Retain Students Enrolled in Online Education - Choosing an Effective Communication Tool.
2	Google Drive-Google Document -Google Sheets-Google Slides-Google Forms- Google Drawings-Google My Maps-Google Sites- Google Slides-Google Apps scripts- Google Imboard
3	Creating Animation and Effects: Animation strategies - TimeLine Animation- Character animation Techniques - fundamentals of Editing.
4	Sound: Import and Export formats - Importing sound to flash - adding sound to timeline - synchronizing audio to animations- stopping sounds - Working with sound forge.
5	Video: Integrating and Importing Video - Editing video with Adobe Premiere- Organizing & Editing clips - Adding Transition between clips - Adding special effects to video.

V. Reference Book:

S.No.	Title	Author/s	Year(Edn)	Publisher/s

VI. Eligibility for Admission


Minimum +2 (open to all on their options)

VII. Duration of the Course:

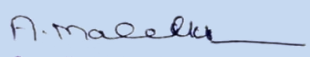
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CERTIFICATE IN VIRTUAL REALITY

I. COURSE TITLE: VIRTUAL REALITY

II. OBJECTIVES:

- To create an adaptive 3D the virtual environment that meets the needs of trainee interpreters and those who need to learn about how to work with interpreters.
- To develop a range of interpreting scenarios (e.g. a business meeting room, a court room, a tourist office, a community centre) that can be run in different modes ('interpreting practice', 'exploration' and 'live');
- To develop multilingual content for use in the interpreting scenarios of the virtual environment
- To create pedagogical activities for interpreting students and users of interpreting services (e.g. interpreting skills, awareness-raising activities);
- To test and evaluate the virtual environment and the pedagogic content

III. OUTCOME OF THE COURSE

- Virtual Reality is something that allows everyone to experience the impossible.
- Virtual Reality is the term used to describe a three-dimensional, computer generated environment which can be explored and interacted by a person.
- Virtual Reality has brought the thoughts and desires of the people to virtually experiencing of what they only dream.
- Virtual reality uses content that is computer generated to simulate images or content in life size and multi-dimensional.
- VR also allows seemingly real interaction with simulated content through the use of special electronic equipment such as the VR Headsets and sensors embedded in the user's clothing etc.

IV. SYLLABUS:

Unit I

Introduction: Course mechanics - Goals and VR definitions - Historical perspective - Birds-eye view (general) - Birds-eye view (general) - Birds-eye view (hardware) - Birds-eye view (software) - Birds-eye view (sensation and perception)

Unit II

Geometry of virtual worlds: Geometric modeling - Transforming models - Matrix algebra and 2D rotations - 3D rotations and yaw, pitch, and roll - 3D rotations and yaw, pitch, and roll - Axis-angle representations - Quaternions - Converting and multiplying rotations - Converting and multiplying rotations - Homogeneous transforms - The chain of viewing transforms - Eye transforms - Eye transform - Canonical view transform - Viewport transform - Viewport transform.

Unit III

Light and Optics: Three interpretations of light - Refraction - Simple lenses - Diopters - Imaging properties of lenses - Imaging properties of lenses - Lens aberrations - Optical system of eyes.

Unit IV

Tracking systems: Orientation tracking - Tilt drift correction - Yaw drift correction - Tracking with a camera - Perspective n-point problem - Filtering - Lighthouse approach.

Unit V

Visual Rendering-Overview - Visual Rendering-overview - Shading models - Rasterization - Pixel shading - VR-specific problems - Distortion shading - Post-rendering image warp

V. Reference Book:

S. No	Title of the Book	Author's	Year of [Edn]	Publications
1.	'Foundations of sensation and perception	George Mather	Third Edition, 2016	Psychology press New Delhi
2	Fundamentals of Computer Graphics	Steve Marchsner, Peter Shirlev	Third Edition 2016	CRC press New Delhi

VI. Eligibility for Admission


Minimum +2 (open to all on their options)

VII. Duration of the Course:


30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
Assignment = 5 marks	Section B- 5 out of 8 (4 marks) = 20 marks
Quiz = 5 marks	Section C- 3 out of 5 (10 marks) = 30 marks
Field Visit/ Case Study - Record = 10 marks	


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CERTIFICATE IN WEB DESIGNING

I. COURSE TITLE: WEB DESIGNING

II. OBJECTIVES:

1. To create a webpage using all input controls.
2. To design a webpage with hyperlink.
3. To design a webpage with frames, table and list etc

III. OUTCOME OF THE COURSE

1. Learn the basic knowledge of Computers and Role of Information Technology
2. Can design simple web pages using HTML

IV. SYLLABUS:

Unit	Detailed Syllabus
I	Introduction to computers, Windows Operating systems, Networks, Internet Web browsers, Basics of HTML, Components of HTML, Formatting the HTML text.
II	Lists in HTML – ordered Lists – Using ordered lists – Unordered Lists – Graphics & HTML documents, Images and Hyperlink Anchors.
III	HTML Tables - Aligning Tables - Elements - Rows and Columns - Spanning - Frames in HTML - Frameset Containers - More about Frames.
IV	HTML Forms - Input Tag - Dynamic Documents - Background graphics and Color - Scrolling Marquees
V	Netscape table enhancement - Select, Option element - Text Area element - Creating Websites like library and college etc. - I frame

V. Reference Book:

S.No	Title of the Book	Author/s	Year (Edn)	Publisher/s
1.	Introduction to Computers	Peter Norton	2017(6)	Mc-Graw Hill Companies
2	HTML & CSS The Complete Reference	Thomas Powell	2017(5)	Mc-Graw Hill Companies

VI. Eligibility for Admission


Minimum +2 (open to all on their options)

VII. Duration of the Course:

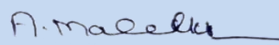
30 hours (1 semester)

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CERTIFICATE IN STOCK AND COMMODITY MARKETS

I. COURSE TITLE: STOCK AND COMMODITY MARKETS

II. OBJECTIVES:

- To enable the students with a conceptual framework of stock markets and commodity markets.
- To enable the students to understand the procedure of buying shares and trading in commodity market.

III. OUTCOME OF THE COURSE

- To know stock markets, depositories and issues of shares.
- To learn the functionalities of stock markets and their mode of trading.
- To understand the functions of commodities exchange.
- To know the pattern of trading and settlement.

IV. SYLLABUS:

Unit I: An Overview of Capital and Commodities Markets: Primary Market, Secondary Market (Stock Market), Depositories, Private placements of shares / Buy back of shares, Issue mechanism. Meaning of Commodities and Commodities Market, differences between stock market and commodities market.

Unit II: STOCK MARKET: History, Membership, Organization, Governing body, Functions of Stock Exchange, On-line trading, Role of SEBI, Recognized Stock Exchanges in India.

Unit III: TRADING IN STOCK MARKET: Patterns of Trading & Settlement – Speculations – Types of Speculations – Activities of Brokers – Settlement Procedure, National Securities Depository Ltd.(NSDL), Central Securities Depository Ltd.(CSDL).

Unit IV: COMMODITIES MARKET: History, Membership, Objectives, Functions of commodities exchange, Organization and role of commodity exchange, Governing Body, Types of Transactions to be dealt in Commodity Market – physical market, Futures market.

Unit V: TRADING IN COMMODITY MARKETS: Patterns of Trading & Settlement, Efficiency of Commodity Markets - Size of volumes of Commodities

V. Reference Book:

S.No.	Title	Author/s	Year(Edn)	Publisher/s
1.	Financial Markets and Institutions.	Gurusamy,	3rd edition,	Tata McGraw Hill.
2	Financial Markets and Institutions	Saunders,	3rd edition,	Tata McGraw Hill.
3	Indian Financial Systems	Khan	6th edition	Tata McGraw Hill

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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CERTIFICATE IN HOME MADE PRODUCTS

I. COURSE TITLE: HOME MADE PRODUCTS

II. OBJECTIVES:

- To Determine The Demand Of Handmade Products In The Market.
- To Analyse The Perception Towards Price Range Of Handmade Products
- Change In Customer Preference And Time Factor

III. OUTCOME OF THE COURSE

- Use less energy and fewer resources than their factory-made counterparts
- Get an original and unique product
- People know who make the products

IV. SYLLABUS:

UNIT - I

Phenyl and Soap Oil - Introduction - Ingredients - Methods of Preparation of Phenyl and Soap Oil - Cost-benefits.

UNIT - II

Face Wash, Soap and Shampoo - Introduction - Ingredients used in the Preparation of Face Wash, Soap and Shampoo - Cost - benefits to human.

UNIT - III

Herbal Bathing Powder and Hair Oil - Introduction - Ingredients - Methods of Preparation of Herbal Bathing Powder and Hair Oil - Cost-Benefits.

UNIT - IV

Sathu Masru and Herbal Immunity Booster - Introduction - Ingredients used in the Preparation of Sathu Masru and Herbal Immunity Booster - Benefits to Children and adults.

UNIT - V

Homemade Biscuit and Cake - Introduction - Ingredients - Methods of Preparation of Homemade Biscuit and Cake - Uses.

V. Reference Book:

S. No	Title of the Book	Author's	Year of [Edn]	Publications
1.	Homemade: A Surprisingly Easy Guide to Making	Digest Reader's	2006	Reader's Digest Assoc.
2	The Big Book of Homemade Products	Jan Berry	2020	Page Street Publishing

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

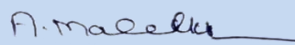
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Meaning - Concept & Ideology of Cooperation- its Values & Principles - History of Cooperative Movement in India - Different Sectors of Cooperative Movement & their Organisational Structure - Growth and Recent Trends in Cooperative Movement in India - Problems & Challenges Before Cooperative Movement and Strategies to overcome them.

Unit -2: COOPERATIVE MANAGEMENT

Principles and Functions of Management and Their Application in Cooperative Sector - Distinctive Features of Cooperative Management - Role of General Body, Board of Director & Managing Director/ Secretary etc, Members - Their Right & Liabilities - Management of cooperative societies - Salient Managerial Problems in Cooperative Sector.

Unit-3: COOPERATIVE LAW

History of Cooperative legislation in India - Recent development in Cooperative Legislation - Organisation & Registration of a Cooperative Societies - pre-registration meeting, preparation of papers at various stage, registration procedure, bye-laws and amendment Byelaws, Amalgamation and division of cooperative societies -Disputes & settlement of disputes in cooperative societies - Winding up & dissolution of cooperative societies.

Unit -4: ROLE OF COOPERATIVES IN AGRICULTURE & RURAL DEVELOPMENT

Role of cooperatives in development of farming system-Joint cooperative farming (JCF)/ contract farming - lessons from successful cases of JCF system - Role of cooperatives in agriculture development - input supply, procurement, storage, processing, value added processing activities, marketing of agriculture produce through cooperatives.

Unit-5: COOPERATIVE PROJECT-PLANNING, FORMULATION & IMPLEMENTATION

Project- Concept, Characteristic & Need of Project Planning, Role of Project Manager. Identification of project, different types of feasibility- economic, social, technical, financial etc Monitoring & Project Evaluation, Management control System as a tool for Project Management.

V. Reference Books:

S.No	Title	Author/s
1	<u>Management Co-operativists</u>	<u>Peter Davis,</u>
2	Co-operative Management: Principles and Techniques	<u>S.Nakkiran,</u>
3	<u>Management of Co-operative enterprises</u>	<u>Dr. Deena Mathew Dr. Sreedhar Nair</u>

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:


30 hours (1 semester)

VII. Examination/ Evaluation Components

Internal 40	External 60
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S.No	UG II Year	
	Department	Title of the programme
1	Tamil	Traditional Games
2	Sanskrit	-
3	English	Business English
4	Economics	Essential Econometrics
5	Maths	Numerical Ability
6	Physics	Medical physics and its Instrumentation
7	Chemistry	Cosmetics And Consumer Products
8	Computer Science	Python Programming
9	Computer Application	Social Networking
10	Information Technology	Cyber Security
11	Commerce	Goods and Service Tax
12	Commerce CS	Actuarial Science
13	Business Administration	Tourism Management


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CERTIFICATE IN BUSINESS ENGLISH

I. COURSE TITLE : Business English

II. OBJECTIVE

1. To develop basic skills to deal with people in business situations
2. To increase their knowledge of key business concepts worldwide

III. OUTCOME

1. Write and read basic business reports, letters and memos
2. Develop confidence to deal with people and basic issues in the business world.

IV. SYLLABUS

UNITS UNIT-I

Communication in Business, Avoid Commercial Jargon, Creating Goodwill in Correspondence

UNIT - 2

A Good Business Letter, Sales Letters, Circular Letters, Trade Enquiries, Trade Order, Confirmation of Orders, Making Payments

UNIT - III

Application for Situation, Correspondence with the Government, Agenda and Minutes, Drafting of Reports

UNIT - IV

Banking Letters, Insurance Correspondence

UNIT - V

Agency Correspondence, Import Trade Correspondence, Export Trade Correspondence, Letters to Editors and Complaints of Personnel, Public Relations Letters, Modern Technology

V. Reference Books:

S. No	Title	Author/s	Year (Edu)	Publisher/s
1.	Modern Commercial Correspondence	R.S.N Pillai Bagarathi	2010	S. Chand Publishing
2.	Developing Communication Skills	Krishna Mohan & Meera Banerji	2011	Macmillan India Press

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:


30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
Assignment = 5 marks	Section B- 5 out of 8 (4 marks) = 20 marks
Quiz = 5 marks	Section C- 3 out of 5 (10 marks) = 30 marks
Field Visit/ Case Study - Record = 10 marks	


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CERTIFICATE IN ESSENTIAL ECONOMETRICS

I. COURSE TITLE: ESSENTIAL ECONOMETRICS

II. Objectives:

- Students can study scope of econometrics.
- Students can understand the collection of data.
- The students know the statistical properties.
- The students can analyse the explanatory variables.

III. OUTCOMES:

- To acquire the goals of Econometrics.
- To analyse the linear Regression model.
- To evaluate the specification of the methodology of Econometrics.
- To design and carry out forecasting analysis.

IV. Syllabus

UNIT – I Introduction

Definition & Scope of Econometrics – Relationship between Econometrics, Mathematical Economics and Statistics – Goals of Econometrics – Limitations – Divisions of Econometrics.

UNIT – II Methodology of Econometrics

Methodology of Econometrics – Specification of the Model – Collection of Data – Estimation of the Model – Evaluation of the Co-efficient of the Model. Forecasting Power of the Model – R-square, Estimation and Evaluation.

UNIT -III Linear Regression Model

Meaning – Assumptions – Least Square Methods – Statistical Properties of Least Square Estimations – Goodness of Fit – Simple Problems Meaning – Assumptions – Statistical Properties Least Square Estimations – [GLRM] – General Linear Regression Model – Simple Problems with Two Explanatory variables.

UNIT – IV Violation of OLS Assumption

Auto Correlation, Heteroscedasticity – Multicollinearity - Sources, Consequences, Test, Remedies.

UNIT – V Forecasting Analysis

Meaning – Stationary & Non-Stationary – Time series analysis – Methods of Forecasting.

V. References

Text Books:

S. No.	Title	Author/s	Year (Edn)	Publisher/s
1.	Basic Econometrics	Damodar N. Gujarati Dawn C. Porter Sangeetha Gunasek ar	2019 (5)	Tata McGraw Hill Education Pvt. Ltd., New Delhi

Reference Book

S. No.	Title	Author/s	Year (Edn)	Publisher/s
1.	Statistics Theory and Practice	R.S.N. Pillai Bagavathi	2016 (8)	S. Chand & Company Pvt. Ltd., New Delhi

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:


30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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CERTIFICATE IN NUMERICAL ABILITY

I. COURSE TITLE : Numerical Ability

II. OBJECTIVE

1. To enhance the problem solving skills
2. To improve the basic mathematical skills
3. To help the students who are preparing for any type of competitive examinations

III. OUTCOME

1. understand the basic concepts of quantitative ability
2. Use their numerical ability knowledge in Campus Placement
3. Use Mathematical ideas in real world problems.

IV. SYLLABUS

Unit	Detailed Syllabus
I	Problems on numbers- Percentage-Ratio & Proportion
II	Problems on ages - Heights and Distances
III	Profit and loss- Averages
IV	Simple Interest and Compound Interest
V	Time and Work

V. REFERENCE BOOKS

S. No	Title of the Book	Author's	Year (Edition)	Publisher/s
1	Objective Arithmetic I	R.S. Aggarwal	2010	S. Chand & Co Publication

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

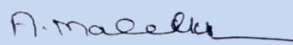
30 hours (1 semester)

VIII. Examination/ Evaluation Components

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Field Visit/ Case Study - Record = 10 marks	20 marks
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	marks


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CERTIFICATE IN MEDICAL PHYSICS AND ITS INSTRUMENTATION

Course Title: **Medical Physics and its Instrumentation**

I. Objectives:

1. The purpose of this course is study to laser, MRI, PET.
2. Student can gain the knowledge about the instrumentation to use to medical field.
3. Student learned to the principle of operating instrument to medical science.

II. Outcome of the Course:

The students can

1. Learn basic design principles of medical instruments and their components
2. know about electrocardiography – Principles, Lead configuration.
3. Study about electrocardiography – Brain waves, Placement of electrodes and analysis
4. Gain knowledge about operation theatre equipments, surgical diathermy.

III. Syllabus/ Units:

Unit I Medical instruments: Introduction – Design of Medical Instruments – Components of Bio-Medical Instrument system.

Unit II Electrocardiography (ECG): Origin of cardiac action potential ECG lead configuration – Block diagram of ECG- Recoding set up

Unit III Electroencephalography (EEG): Origin of EEG–Brain waves – Placement of electrodes Recording setup – Analysis of EEG

Unit IV Operation theatre equipment: Introduction – Surgical diathermy – Ventilators – Suction Machine, Autoclave, H.P. Sterilizer (Vertical and Horizontal)

Unit V Advances in biomedical instrumentation: Lasers in Medicine (Basic principle of laser action, Laser instrumentation, Advantage of Laser surgery)-Nuclear Imaging Techniques-Magnetic Resonance Imaging (MRI) (Magnetic Resonance phenomenon, MRI instrumentation) – Positron Emission Tomography (PET).

IV. Reference Books:

S. No	Title of the Book	Author/s	Year (Edn)	Publisher/s
1.	Bio-Medical Electronics & Instrumentation	Prof. S.K. Venkata Ram	2009	Chand & Co

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:

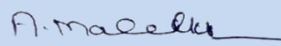
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CERTIFICATE IN COSMETICS AND CONSUMER PRODUCTS

I. Course Title: **Cosmetics And Consumer products**

II. Objective

1. To learn about the composition, purpose of the cosmetics and consumer products.
2. To aware of hair colorants
3. To know face and body cosmetics
4. To prepare chalk, crayons, inks, shoe polish candle and cleansing agents.
5. To learn packing methods and licensing.

III. Outcomes

On the completion of the course the student will be able to

1. Know the caring of hairs.
2. Get the idea about uses of cosmetics.
3. Acquire the knowledge about cleansing agents.
4. Apply their knowledge in preparing simple cottage industrial compounds like inks, chalk etc.
5. Know the packing methods and licensing

IV. Syllabus

Unit-I: Hair care and colorants

Hair structure-permanent hair waving-cold waving-shampoos-different types and formulations-hair conditioners and setting lotions-hair straightening-curling Hair colorants- hair lighteners and bleaches-

temporary colorants-semi and permanent colorants-vegetable dyes- oxidation dyes and modifiers.

Unit-II: Face and body cosmetics

Face powder-talcum powder-medicated powder-bleachers-facials-cold creams- sunscreen lotions-SPF factor- formulation. Deodorants-Antiperspirants-distinction between astringents and deodorants- formulation- lotions-perfumes-formulation Lipsticks-classification and formulation

Unit-III: Toiletries and cleansing agents

Both soap- bath powders – bath oils – water softeners-tooth pastes-ingredients-their characteristic functions- mouth washes-shaving creams-after shave preparations. Detergents- classification-formulation-cleansing action-optical brighteners-bleachers-phenoxyl-black phenoxyl, scented phenoxyl.

Unit-IV: Preparation of Consumer Products

Preparation of Face Powder, Tooth Powder, Candle, Phenyl, Soap & Detergents, Chalk, crayons, inks, sunscreen, nail polish, shampoo, agar batis, pain balm and shoe polish.

Unit-V: Packing and Licensing

Leading firms, brand names, choosing the right product, Packing regulations, Marketing Licensing – drug license – legal aspects. GMP– ISC 9000/12000 – consumer education. Evaluation of the product – advertisements.

IV .References

Text Books:

S.No	Title of the Book	Author/s	Year (Edn)	Publisher/s
1	Science and Beauty Business Vol-1	<u>V. Suresh</u>	1989	<u>Magnum Education Ltd</u>
2	Applied Chemistry	<u>O.P. Vasanthi and A.K. Narula</u>	2008	New Age International Publishers, <u>New Delhi</u>

Reference Book:

S.No	Title of the Book	Author/s	Year (Edn)	Publisher/s
1	Industrial Chemistry	B. K. Sharma	2011 (16)	Goel Publishing House, Meerut

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:

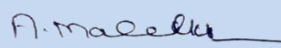
30 hours (1 semester)

VII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
Assignment = 5 marks	Section B- 5 out of 8 (4 marks) = 20 marks
Quiz = 5 marks	Section C- 3 out of 5 (10 marks) = 30 marks
Field Visit/ Case Study – Record = 10 marks	


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CERTIFICATE IN PYTHON PROGRAMMING

I. COURSE TITLE : Python Programming

II. OBJECTIVES

1. To enhance the problem solving skills
2. To understand why python is a useful scripting language for developers
3. To learn how to design and program python applications
4. To learn how to use strings and lists in python programs

III. OUTCOMES

1. understand the basic concepts of quantitative ability
2. To learn how to use strings and lists in python programs
3. To learn how to write and decision statements in python
4. To learn how to write functions and pass arguments in python

IV. SYLLABUS

Unit	Detailed Syllabus
I	Planning the Computer Program: Concept of problem solving- Problem definition- Program design- Debugging- Documentation. Techniques of Problem Solving: Flowcharting - decision table – algorithms- Structured programming concepts- Programming methodologies viz. top-down and bottom-up programming
II	Overview of Programming: Structure of a Python Program- Elements of Python. Introduction to Python: Python Interpreter- Using Python as calculator- Python shell- Indentation- Atoms- Identifiers and keywords- Literals- Strings- Operators (Arithmetic operator- Relational operator- Logical or Boolean operator)
III	Creating Python Programs: Input and Output Statements- Control statements (Branching- Looping- Conditional Statement- Exit function- Difference between break- continue and pass.)- Defining Functions- default arguments
IV	Iteration and Recursion: Conditional execution- Alternative execution- Nested conditionals- Return statement- Recursion- Stack diagrams for recursive functions- Multiple assignment- while statement- for statement
V	Strings and Lists: String as a compound data type- Length- Traversal and the for loop- String slices- String comparison- A find function- Looping and counting- List values- Accessing elements- List length- List membership- Lists and for loops- List operations- List deletion. Object Oriented Programming: Introduction to Classes- Objects and Methods.

V. REFERENCE BOOKS

S. No	Title of the Book	Author's	Year (Edn)	Publisher/s
1	Introduction to Computation and Programming Using Python ³ ,	John V. Guttag,	2010	MIT Press
2	Think Python: How to Think Like a Computer Scientist	Allen Downey, O'Reilly	2013	Packt Publishing
3	Learning Python	Mark Lutz, O'Reilly	5th Edition	Wesley press

PRACTICAL PROGRAMMES - LIST OF PROGRAMS

1. Create a program to convert the given temperature from Fahrenheit to Celsius
2. Create a program to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.
3. Write a program to display the first *n* terms of Fibonacci series
4. Write a program to find the factorial of the given number
5. Write a program to calculate the sum of two matrices

VII. Eligibility for Admission

Minimum +2 (open to all on their options)

VIII. Duration of the Course:

30 hours (1 semester)





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CERTIFICATE IN SOCIAL NETWORKING

I. COURSE TITLE: CERTIFICATE IN SOCIAL NETWORKING

II. OBJECTIVE

1. The main objective of the Social Networking Site is to manage the details of Users, Videos, Shares, Photos, and Friends.
2. The students can manage all the information about Users, Posts, Friends, and Users.
3. The students can have the concepts totally built at administrative end and thus only the administrator is guaranteed the access.
4. The students learn a Networking in modern social media.

III. OUTCOME

5. Positivity of social networking.
6. Know about the legislations of social networking.
7. Know about the connectivity of the people.

IV. Syllabus

Unit	Detailed Syllabus
1	Social Networking Basics: Understand what social networking is. Know the risks and benefits of social networking - Understand what an online identity is.
2	Social Network Profile: Identify different social networking sites - Know how to create a social network profile - Know how to add an image to a social network profile - Understand the privacy options within a social network profile - Know how to report misconduct / abuse within a social network - Know how to deactivate a social network profile - Know how to set profile permissions and privacy.
3	Connecting to people: Know how to search for people with-in a social network - Know how to connect to people within a social network - Know how to accept and decline connection requests within a social network - Know how to send and respond to messages within a social network - Know how to post a comment within a social network.
4	Groups, Events and sharing: Understand what groups are within a social network - Know how to join groups within a social network - Know how to join an event within a social network - Know how to upload digital photographs / videos within a social network - Know how to tag photographs within a social network.
5	Social Networking Guidelines and Legislations: Understand about the behavioural rules when using social networks - Understand what illegal content is - Understand that there are minimum age requirements for social networking sites - Understand how copyright legislation applies to social networking - Understand how data protection legislation applies to social networking.

8. REFERENCE BOOKS:

S. No	Title of the Book	Author's	Year (Edn)	Publisher's
1	Networks, crowds and markets: Reasoning about a highly connected world	David Foray and John Kleinberg	2010 (1)	Cambridge University press, (US)
2	Social media mining	Reza Zafarani, Mohammad Ali Aksoy, Huan Li, et al.	2014 (1)	Cambridge University press, (US)

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:

30 hours (1 semester)

VII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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Field Visit/ Case Study - Record = 10 marks	

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CERTIFICATE IN CYBER SECURITY

I. **COURSE TITLE :** CERTIFICATE IN CYBER SECURITY

II. **OBJECTIVE**

- To protect the confidentiality of data.
- To preserve the integrity of data.
- To promote the availability of data for authorized users.
- To strengthen the Regulatory framework for ensuring a Secure Cyberspace ecosystem

III. **OUTCOME**

- Analyze and evaluate the cyber security needs of an organization.
- Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.
- Implement cyber security solutions and use of cyber security in Smart phones.

IV. **SYLLABUS**

Unit	Detailed Syllabus
I	Introduction :History Of Internet - Internet Addresses - Dns - Internet Infrastructure -World Wide Web-Introduction To Cyber Crime : Classification Of Cyber Crimes -Reasons For Commission Of Cyber Crimes -Malware And Its Type - Kinds Of Cyber Crime
II	Authentication-Encryption - Digital Signatures - Antivirus - Firewall - Steganography -Generating Secure Password -Guideline For Setting Secure Password - Using Password Manager - Some Popular Password Managers - Enabling Two-Step Verification - Securing Computer Using Free Antivirus-Working With Windows Firewall In Windows- Firewall In Windows 7 - Configuring Windows Firewall - Start & Use The Windows Firewall With Advanced Security
III	Finding The Best Browser According To The Users Requirement -Safe Browsing- A Website Is Secure or Not- Tips For Buying Online -Clearing Cache For Browsers -Wireless Lan-Major Issues With Wlan - Secure Wlan - Wi-Fi At Home
IV	Safe Browsing Guidelines For Social Networking Sites :General Tips On Using Social Networking Platforms Safely - Posting Personal Details - Friends, Followers And Contacts -Status Updates - Sharing Online Content -Revealing Your Location -Sharing Videos And Photos -Instant Chats -Joining And Creating Groups, Events And Communities -Email Security Tips
V	Smartphone Security Guidelines :Purses, Wallets, Smartphones -Platforms, Setup And Installation - Communicating Securely Through Voice And Messages: With A Smartphone Secure Voice Communication - Sending Messages Securely -Storing Information On Your Smartphone -Sending Email From Your Smartphone -Capturing Media With Your Smartphone -Accessing The Internet Securely From Your Smartphone -advanced Smart Phone Security

V. REFERENCEBOOKS:

S. No	Title of the Book	Author's	Year(Edition)	Publisher/s
1	Networks crowds and markets Reasoning about a highly connected world	David Easley and John Kleinberg	2010 (1)	Cambridge Universitypress (US)
2	Social media mining	Razafaranjy, Mohammad Aliyasaq, Huan Liu	2014 (1)	Cambridge Universitypress (US)

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:


30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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CERTIFICATE IN GOODS AND SERVICES TAX

I. COURSE TITLE : Goods and Services Tax

II. OBJECTIVE

1. To enable the students to know about Goods and Service Tax.
2. To enable the students to know about registration, returns, assessment.

III. OUTCOME

1. To give the students a general understanding of the GST law in the country
2. To provide an insight into practical aspects of GST and
3. To equip them to become tax practitioners.

IV. SYLLABUS

Unit I - Introduction to Goods and Services Tax: Meaning - Evolution - Methodology - Subsuming of taxes - Benefits of implementing GST - Structure of GST - Integrated Goods and Services Tax - Important concepts and definitions under CGST Act and IGST Act.

Unit II - Levy, Tax Collection and Reverse Charge Mechanism: Rates of GST - Scope of Supply - Composite and Mixed Supplies, E-commerce under GST regime - Liability to pay tax, Reverse Charge Mechanism - Composition Scheme of Levy - Value of taxable supply - Interstate supply - Intra state supply.

Unit III - Concept of time and place of supply & Import and Export: Time of supply - Place of supply - Significance - Time and place of supply in case of intra state supply, interstate supply and import and export of goods and services.

Unit IV - Input Tax Credit & Payment of GST: Cascading Effect of Taxation - Benefits of Input Tax Credit - Manner of claiming input tax credit in different situations - Computation - Input service distribution - Computation - Manner of payment of tax - Tax Deduction at Source - Collection of Tax at Source - Refunds.

Unit V - Registration, Returns and Accounts and Assessment: Registration - Persons Liable for Registration - Compulsory Registration - Deemed Registration - Procedure for Registration - Returns - Accounts and Records - Forms for above - Assessment - An overview of various types of assessment.

V. REFERENCE BOOK

S. No	Title of the Book	Author's	Year (Edn)	Publisher's
1	Indirect Taxes	Vinod K Singaria	2010	Taxmann's Publications, New Delhi
2	Indirect Taxes	H.C Mehrotra	2014	Sahitya Bhavan Publications, New Delhi
3	Illustrated Guide to Goods and Service Tax	C A Rajat Mohan	2017	Bharat Publications

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

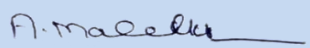
30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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CERTIFICATE IN ACTUARIAL SCIENCE

I. COURSE TITLE: ACTUARIAL SCIENCE

II. Objectives:

- To develop the knowledge needed to perform an actuary job.
- To develop the confidence with people and basic issues in the Actuaries field.
- To demonstrate a capacity to successfully work independently with personal accountability.
- To stimulate the students for understanding the core areas of actuarial practice and relate to actuarial principles, theories and models.

III. Outcomes

- Assess the suitability of actuarial, financial and economic models in solving actuarial problems.
- Interpret and critically evaluate articles in the actuarial research literature.
- ~~Calculate~~ Analyse actuarial data using advanced statistical techniques.
- Calculate quantities such as premiums, reserves and superannuation contribution rates using actuarial techniques.
- Demonstrate creativity and initiative in application of knowledge to problem solving and innovation.
- Certificate bearer of this course will be critical thinkers in relation to actuarial studies and related disciplines.

IV. Syllabus

Introduction- Meaning- Objectives- Subjects included in actuarial science- Early actuaries - Initial Development- Pre-formalization - The Actuaries Act 2006-Actuarial Society of India -Institute of Actuaries of India (IAI)-Objects of the IAI

UNIT - II

Life Insurance, Health and Care Insurance - General Insurance Pricing-actuarial techniques-asset/liability modeling - Investment strategy -types of contract - Principles of health and care insurance contracts -interests of the various stakeholders in the process.

UNIT - III

Finance and Investment - Types of loan and share capital. Distinction between authorized and issued share capital. Types of medium-term company finance- hire purchase -credit sale -leasing -bank loans -Investment models. Principles and objectives of investment management-different methods for the valuation of individual investments modelling.

UNIT - IV

Business Economics and Statistical Methods -competitive markets- consumer demand and behavior -Gain a knowledge of the production function, costs of production, revenue and profit - decision theory -. Probabilities and moments of loss distributions -Construct risk models involving frequency and severity distributions - Bayes' Theorem

UNIT - V

Risk Management - Introduction- Distinction between the risks taken as an opportunity for profit and the risks to be mitigated. -Principle of pooling risks. - methods of transferring risks.

-risks and uncertainties - overall security benefits payable on contingent events.-credit risk-credit ratings-liquidity risk-market risk-operational risk-business risk.

IV. References

Text Books:

S. No	Title	Author/s	Year (Edn)	Publisher/s
1	The Mathematical Theory of Life Insurance and Annuities	Zillmer	2017 (2)	Zillmer Publications, Britain.
2	The Failure of Risk Management	Douglas W. Hubbard	2019 (K)	John Wiley & Sons, Ltd

v. Eligibility for Admission

Minimum +2 (open to all on their options)

vi. Duration of the Course:


30 hours (1 semester)

vii. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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CERTIFICATE IN TOURISM MANAGEMENT

I. COURSE TITLE : Tourism Management

II. OBJECTIVE.

1. To understand different types of tourism
2. To learn the characteristics and components of tourism industry

III. OUTCOME

1. To study the most effective processes in Motivation of Tourism Demand
2. To understand impact of socio-cultural, environmental and economic Factors

IV. SYLLABUS

Unit – 1 Introduction of Tourism:

Tourism: concepts - definitions - historical development - Types of tourists: tourist, traveler, excursionists - Forms of tourism: inbound, outbound, domestic and international.

Unit – 2 Tourism Industry

Nature and forms of Travel/Tourism - Tourism System: Nature, Characteristics - components of tourism industry - Push- pull factors in Tourism.

Unit -3 Motivation for travel

Motivation for travel- basic travel motivators - early travel motivators. - Tourism Demand - Motivation of Tourism Demand - Measuring Tourism Demand - Pattern and characteristic of tourism supply - Factors influencing tourism demand and supply.

Unit -4 Tourism Organizations

Organizations in tourism- need & factors - National Tourist Organizations - Role and functions of Important Tourism Organizations: WTO, IATA, PATA, TAAI, WTTC - Seasonality & tourism

Unit – 5 Impacts of Tourism

Impacts of tourism at the destination - Its impact: socio-cultural, environmental and economic - Factors affecting the future of tourism business - Sociology of tourism

V. REFERENCEBOOKS:

S.No	Title	Author/s	Publisher
1	<u>Introduction to Tourism</u>	<u>A.K.Bhatia</u>	<u>S.Chand Publications</u>
2	<u>Tourism System</u>	Mill R.C & Morrison	Himalaya Publishing House.
3	<u>Tourism Development</u>	<u>R.Garber</u>	Himalaya Publishing House.
4	<u>Successful Tourism Management</u>	<u>Dram Nath Sethy</u>	<u>S.Chand Publications</u>

VI. Eligibility for Admission


Minimum +2 (open to all on their options)

VII. Duration of the Course:

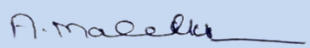
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VIII. Examination/ Evaluation Components

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S.No	UG III Year	
	Department	Title of the programme
1	Tamil	-
2	Sanskrit	-
3	English	English for Communication
4	Economics	Computer Data Analytics for Economists
5	Maths	Mathematical Logic
6	Physics	Basic of Physics Concepts
7	Chemistry	Food Chemistry
8	Computer Science	Artificial Intelligence and Expert System
9	Computer Application	Artificial Intelligence
10	Information Technology	Essentials of Big Data Analytics
11	Commerce	Logistics Management
12	Commerce CS	E-Commerce
13	Business Administration	Entrepreneurial Development


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CERTIFICATE IN COMPUTER DATA ANALYTICS FOR ECONOMISTS

I. COURSE TITLE: Computer Data Analytics for Economists

II. OBJECTIVES:

- Students can study graphs and diagrams.
- Students can understand the simple arithmetic.
- The students know the structured query language.
- The students evaluate online transactions.

III. OUTCOMES:

- To understand the computations and descriptive of data analysis using SPSS.
- To analyse the database management using single user system.
- To evaluate the advantages of e-banking services.
- To carry out the presentation of a case on online purchase of products.

IV. SYLLABUS / UNITS:

UNIT – I Data Analysis Using SPSS

Computations and Descriptives – Graphs and Diagrams- Correlation- Regression - ANOVA (Analysis of Variance)- Chi Square -Multiple Regression.

UNIT – II Database Management Using Single User System

Excel: Simple arithmetic- Tables and Graphs –Formula- Trend Analysis – Forecasting.

UNIT -III Database Management Using Multiple User System

Data base management using SQL (Structured Query Language) server- MySQL server –Tables and Sorting - Projects in DBMS(Data Base Management System).

UNIT – IV E – Banking

Electronic Banking: Types - E- Channels in E-Bank - Online Bank Services - Core Banking – Online Payment Modes – ATM(Automated Teller Machine)-Advantages of E-Banking- Question of security.

UNIT – V Dynamism

- Case study of online transaction.
- Presentation of a case on online payment using e-banking.
- Presentation of a case on online payment for a tickets (flight, bus or train).
- Presentation of a case on online purchase of products in trading websites.
- Presentation of a case on online purchase and sales of used products using OLX (On Line eXchange) or any.

IV. REFERENCES

S. No.	Title	Author/s	Year (Edu)	Publisher/s
1	Business Data Science	Matt Taddy	2019 (1)	McGraw Hill Professional Publication

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:


30 hours (1 semester)

VII. Examination/ Evaluation Components

Internal 40	External 60
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CERTIFICATE IN MATHEMATICAL LOGIC

I. **COURSE TITLE** : Mathematical Logic

II. **OBJECTIVE**

1. To equip the students with mathematical tools that has applications in various fields
2. To enable students to develop construction and verification of mathematical logic
3. To gain fundamental knowledge about lattices and Boolean Algebra

III. **OUTCOME**

1. Determine whether any particular argument or reasoning is valid or not
2. Analyse logical Propositions via truth table.
3. Understand the scientific theory based on the set of hypothesis.

IV. **SYLLABUS**

Unit	Detailed Syllabus
I	Propositional Logic: Proposition – Logical Connectives – Compound Propositions – Conditional and bi conditional Propositions.
II	Exclusive of P and Q – Contra positive – well formed Formulae – Precedence of Logical Operators – Truth Table.
III	Propositional Equivalence: Tautology- Contradiction
IV	Logical Equivalence & Implications – De Morgan's laws – Replacement Process – Tautological Implications – Duality – The other connectives.
V	Normal Forms: Disjunctive Normal form – Conjunctive Normal form – Principal Disjunctive Normal form – Principal Conjunctive Normal form.

V. **TEXT BOOKS**

S. No	Title of the Book	Author's	Year (Edn)	Publisher/s
1	Discrete Mathematics	Dr. A. Singaravelu Dr. M. P. Jeyaraman	2013(6)	Meenakshi Agency, Chennai

VI. **REFERENCE BOOKS**

S. No	Title of the Book	Author's	Year (Edn)	Publisher/s
1	Discrete Mathematics	G. Balaji	2013(6)	G. Balaji Publishers
2	Discrete Mathematics	S.K. Chakrabarty & B.K. Sarkar	2012(3)	OXFORD University Press

VI. **Eligibility for Admission**


Minimum +2 (open to all on their options)

VII. **Duration of the Course:**

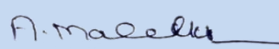
30 hours (1 semester)

VIII. **Examination/ Evaluation Components**

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
Assignment = 5 marks	Section B- 5 out of 8 (4 marks) = 20 marks
Quiz = 5 marks	Section C- 3 out of 5 (10 marks) = 30 marks
Field Visit/ Case Study – Record = 10 marks	


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CERTIFICATE IN BASICS OF PHYSICS CONCEPTS

I. Course Title: **Basics of physics concepts**

II. Objectives:

1. Students to gain the many information of fundamental in physics.
2. The purpose of this course is study to physics relate to everyday life.
3. Students learned to the information for matter

II. Outcome of the Course:

1. The students can understand the theory of the Fundamentals of Physics
2. The students can gain knowledge about physics laws and properties

III. Syllabus/ Units:

Unit I Motion – speed, velocity, acceleration – force – equations of motion – Newton's laws – momentum – work power and energy – conservation of energy and momentum

Unit II Three states of matter – binding forces – fluid pressure and thrust – applications – ~~pascallaw-~~ Archimedes principle – surface tension – capillary action – pitot's tube

Unit III Measurement of heat and temperature – clinical thermometer – heat transfer – thermos flask – change of state – heat ~~engine~~ sound and music – acoustics of building

Unit IV Reflection and refraction – concave and convex mirrors and lenses – dispersion – spectra – rainbow – interference – diffraction – polarization – concepts with examples – uses

Unit V Electrical field – potential – Ohm's law electrical energy and power – resistance – ~~types of~~ resistance – resistance in series ~~and parallel~~ – Kirchoff's law's

IV. Reference Books:

S. No	Title of the Book	Author/s	Year (Edn)	Publisher/s
1.	Properties of matter	E. Murugesu	2007	S Chand & Co. Pvt. Ltd., New Delhi
2.	Electricity and Magnetism	E. Murugesu	2007	S Chand & Co. Pvt. Ltd., New Delhi
3.	Heat and thermodynamics	Erijal and Subramaniam		S Chand & Co. Pvt. Ltd., New Delhi
4.	Optics by Subramanian	Erijal and Subramaniam	1990	S Chand & Co. Pvt. Ltd. New Delhi

V. Eligibility for Admission

Minimum +2 (open to all on their options)

VI. Duration of the Course:

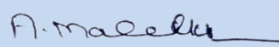
30 hours (1 semester)

VII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks Assignment = 5 marks Quiz = 5 marks Field Visit/ Case Study – Record = 10 marks	Section A- True or False = 10 marks Section B- 5 out of 8 (4marks) = 20 marks Section C- 3 out of 5 (10 marks) = 30 marks


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CERTIFICATE IN FOOD CHEMISTRY

I. Course Title: **Food Chemistry**

II. Objectives of the Course

1. To acquire the basic knowledge of food chemistry.
2. To acquire knowledge on nutrition contents in food
3. To became aware of various preservation techniques
4. To impart practical knowledge on different cooking techniques
5. To make them know how to prepare different recipes.

III. Outcomes

1. Know the basics of food chemistry
2. Get the idea about nutrition tip
3. Know the food preservation methods
4. Able to do the various food items
5. Understand the food preparation techniques

IV. SYLLABUS / UNITS

Unit - I Introduction to food chemistry

Definition for food chemistry- Food as a source of energy biological importance, functions and formula of carbohydrates, fats, proteins, vitamins - food rich in carbohydrates, fat, protein, different types of Vitamin, Micronutrients, Iron.

Unit - II Food preservation

Definition - Different various method of preservation and techniques involving storage- Hurdle technology - Method of Storage and fats - Dry storage of foods - Food Rotation.

Unit - III Nutrition tips

Kitchen clean up tips, home management tips - seven things not to do after eating

Unit - IV Food preparation

Essence of food preparation - cooking technique - Nutritional value of food - Nuts & oil seeds - Nutritive value of Egg - Waterless cooking - Novel food additives.

Unit - V Recipe of Food items

Different Dishes and Biryani - Different types of Kurmas - Paneer recipes - Vatha and Vadagam - Pickles - Sweets - Karam

IV. References

S.No	Title of the Book	Author/s	Year(Edn)	Publisher/s
1	Nutrition Science	B. Srilakshmi	2012 (4)	New age international private Ltd, New Delhi.
2	Dietetics	B. Srilakshmi	2011 (6)	New age international private Ltd, New Delhi.
3	Food Preservatives	<u>Nicholas J. Russell, Grahame W. Gould.</u>	2002 (2)	Springer.

V. Eligibility for Admission


Minimum +2 (open to all on their options)

VI. Duration of the Course:

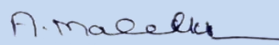
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VII. Examination/ Evaluation Components

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CERTIFICATE IN ARTIFICIAL INTELLIGENCE

I. COURSE TITLE : Certificate in Artificial Intelligence

II. OBJECTIVE

1. Gain a historical perspective of AI and its foundations.
2. Become familiar with basic principles of AI toward problem solving, inference, perception, knowledge representation and learning.
3. Investigate applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.
4. Experiment with a machine learning model for simulation and analysis.
5. Explore the current scope, potential, limitations, and implications of intelligent systems.

III. OUTCOME

1. To create appreciation and understanding of both the achievements of AI and the theory underlying those achievements.
2. To introduce the concepts of a Rational Intelligent Agent and the different types of Agents that can be designed to solve problem.
3. To review the different stages of development of the AI field from human like behavior to Rational Agents.
4. To impart basic proficiency in representing difficult real life problems.
5. To implement AI techniques in Python and R Programming.

IV. SYLLABUS

Unit	Detailed Syllabus
I	Introduction to Artificial Intelligence: What is Artificial Intelligence?-Why do we need to study AI-Applications of AI-Branches of AI-Defining Intelligence using Turing Test- Making Machines Think Like Humans-Building Rational Agents-Building an Intelligent Agent.
II	Coding in R using R Studio: data types in R-vectors in R-Creating and using Data Lists-Matrices in R - Multiple Dimension using Arrays-Data Frames-using R to Perform Statistical tasks.
III	Coding in Python Using Anaconda: Working with Numbers and Logic - Performing variable assignments - Doing arithmetic - Comparing data using Boolean expressions - Strings - Dates - Functions - Working with global and local variables - Conditional and Loop Statements - Making decisions using the if statement - multiple options using nested decisions - Sets, Lists, and Tuples.
IV	Supervised and Unsupervised Learning-What is Supervised Learning - what is Classification-preprocessing data-labelled encoding- regression classifier - Naive Bayes Classifier-SVM-Examples with Python and R-Unsupervised: What is Unsupervised Learning- clustering data with K-Means Algorithm-examples with Python and R.
V	Neural Network: Introduction to Neural Network(NN) - building a NN -training a NN - building a perceptron based classifier- single layer NN - Multilayer NN- Artificial Neural Network(ANN) - Architecture of ANN - ANN using Python and R - Convolutional Neural Network(CNN) - Architecture of CNN - CNN with Python and R.


V. REFERENCE BOOKS:

S.No	Title of the Book	Author	Edition, Year	Publication
1	Artificial Intelligence with Python	Prateek Joshi	First Edition, 2017	Packt Publishing
2	Machine Learning for Dummies	John Paul Mueller and Luca Mesaron	First Edition, 2016	John Wiley & Sons, Inc.,

S.No	Title of the Book	Author	Edition, Year	Publication
1	Python Machine Learning by Example	Yuxi (Hayden) Liu	First Edition, 2017	Packt Publishing
2	Deep Learning	Ian Goodfellow, Yoshua Bengio and Aaron Courville	Second Edition, 2017	MIT Press


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CERTIFICATE IN ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM

I. **COURSE TITLE** : Artificial Intelligence and Expert System

II. OBJECTIVES

1. Gain a historical perspective of AI and its foundations.
2. Become familiar with basic principles of AI toward problem solving, inference, perception, knowledge representation, and learning.
3. Investigate applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.
4. Experiment with a machine learning model for simulation and analysis.
5. Explore the current scope, potential, limitations, and implications of intelligent systems

III. OUTCOMES


1. To create appreciation and understanding of both the achievements of AI and the theory underlying those achievements.
2. To introduce the concepts of a Rational Intelligent Agent and the different types of Agents that can be designed to solve problems
3. To review the different stages of development of the AI field from human like behavior to Rational Agents.
4. To impart basic proficiency in representing difficult real life problems .
5. To implement AI techniques in Python and R Programming.

IV. SYLLABUS


UNIT	SYLLABUS
I	Introduction to Artificial Intelligence: What is Artificial Intelligence?-Why do we need to study AI- Applications of AI-Branches of AI-Defining Intelligence using Turing Test- Making Machines Think Like Humans-Building Rational Agents- Building an Intelligent Agent.
II	Coding in R using R Studio: data types in R-vectors in R-Creating and using Data Lists-Matrices in R - Multiple Dimension using Arrays-Data Frames-using R to Perform Statistical tasks.
III	Expert system-what are Expert system-organization of expert system and tools- Stages in the development of expert system-Architecture of Expert system- Examples pitfalls in Developing expert system-expert system and tools-Application of Expert system.
IV	Machine learning -what why -types of machine learning-supervised learning-Unsupervised learning -some basic concepts of Machine learning- Parametric models and <u>non parametric</u> models- logistic regression- <u>overfitting</u> models selection.
V	Neural Network: Introduction to Neural Network(NN) - building a NN - training a NN - building a <u>perceptron based</u> classifier- single layer NN - Multilayer NN- Artificial Neural Network(ANN) - Architecture of ANN - ANN using Python and R - Convolution Neural Network(CNN) - Architecture of CNN - CNN with Python and R.

V. TEXT BOOK

S.No	Title of the Book	Author	Edition, Year	Publication
1	Artificial Intelligence with Python	Prateek Joshi	First Edition, 2017	Packt Publishing
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CERTIFICATE IN ARTIFICIAL INTELLIGENCE

I. COURSE TITLE : Certificate in Artificial Intelligence

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V	Neural Network: Introduction to Neural Network(NN) - building a NN -training a NN - building a perceptron based classifier- single layer NN - Multilayer NN- Artificial Neural Network(ANN) - Architecture of ANN - ANN using Python and R - Convolutional Neural Network(CNN) - Architecture of CNN - CNN with Python and R.

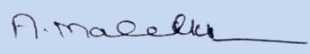
V. REFERENCE BOOKS:

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S.No	Title of the Book	Author	Edition, Year	Publication
1	Python Machine Learning by Example	Yuxi (Hayden) Liu	First Edition, 2017	Packt Publishing
2	Deep Learning	Ian Goodfellow, Yoshua Bengio and Aaron Courville	Second Edition, 2017	MIT Press


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Certificate Programme

CERTIFICATE IN ESSENTIALS OF BIG DATA ANALYTICS

1. COURSE TITLE

CERTIFICATE IN ESSENTIALS OF BIG DATA ANALYTICS

2. OBJECTIVE

1. To provide an overview of Apache Hadoop
2. To provide HDFS Concepts and Interfacing with HDFS
3. To understand Map Reduce Jobs
4. To provide hands on Hadoop Eco System
5. To apply analytics on Structured, Unstructured Data.
6. To exposure Data Analytics with R.

3. OUTCOME

1. Identify Big Data and its Business Implications.
2. List the components of Hadoop and Hadoop Eco-System
3. Access and Process Data on Distributed File System

4. SYLLABUS


Unit	Detailed Syllabus
I	Introduction To Big Data And Hadoop: Types of Digital Data- Introduction to Big Data- Big Data Analytics- History of Hadoop- Apache Hadoop- Analysing Data with Unix tools- Analysing Data with Hadoop- Hadoop Streaming- Hadoop Echo System- IBM Big Data Strategy- Introduction to InfoSphere Big Insights and Big Sheets.
II	HDFS(Hadoop Distributed File System) : The Design of HDFS- HDFS Concepts- Command Line Interface- Hadoop file system interfaces- Data flow- Data Ingest with Flume and Scoop and Hadoop archives- Hadoop I/O: Compression- Serialization- Avro and File-Based Data structures.
III	Map Reduce: Anatomy of a Map Reduce Job Run- Failures- Job Scheduling- Shuffle and Sort- Task Execution- Map Reduce Types and Formats- Map Reduce Features
IV	Hadoop Eco System : PIG : Introduction to PIG- Execution Modes of Pig- Comparison of Pig with Databases- Grunt- Pig Latin- User Defined Functions- Data Processing operators.
V	Hive : Hive Shell- Hive Services- Hive Metastore- Comparison with Traditional Databases- HiveQL- Tables- Querying Data and User Defined Functions. Hbase : HBase- Concepts- Clients- Example- Hbase Versus RDBMS. Big SQL

5. REFERENCE BOOKS

S.No	Title of the Book	Author/s	Year (Edn)	Publisher/s
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CERTIFICATE IN LOGISTICS MANAGEMENT

I. COURSE TITLE : Logistics Management

II. OBJECTIVE

1. To create an idea of logistics management.
2. To familiarize the students with the work of logistics activities.

III. OUTCOME

1. To know about the functionality and principles of logistics.
2. To know the transport functionality and suppliers of transportation service.

IV. SYLLABUS

UNIT 1: Logistics - Meaning - Importance - Types - Logistical Competency - Logistical Mission - Logistical Renaissance - Technological Advancement - Regulatory Change.

UNIT 2: Work of Logistics - Network design - information - Transportation and Inventory - Warehousing - material handling - packaging - integrated Logistics

UNIT 3: Operating - movement consideration - quality - Life cycle support - barriers to internal integration in organizational structure.

UNIT 4: Information functionality and inventory functionality - principles of logistics information - Information Architecture - planning - operations - application of new information technologies.

UNIT 5: Transportation infrastructure - transport functionality - principles - modal classification transportation formats - suppliers of transportation service.

V. REFERENCE BOOK

S. No	Title of the Book	Author's	Year(Edn)	Publisher's
1	Logistics Management —	Sathish C. Ailawadi & Rakesh P. Singh	2015	Himalaya Publishing House
2	Logistics Management & Strategy --	Alan Harrison & Remko Van Hoek	2014	Pearson Publications
3	Introduction to Logistics systems Management —	Gianpaolo Ghisani	2010	John Wiley & Sons Ltd. Publications

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:


30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
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DEPARTMENT OF COMMERCE (CORPORATE SECRETARYSHIP)

Certificate Course - E-COMMERCE

I. SYLLABUS / UNITS

UNIT - I

Introduction - Electronic Commerce - Definition - Meaning - Features - Scope - Electronic Commerce and Trade cycle - Traditional Commerce and E-commerce - Advantages and Disadvantages of E-Commerce. Technical and non-technical limitations of E-Commerce.

UNIT - II

Electronic Markets - Usage - Advantages and Disadvantages - Future of Electronic Markets - Online shopping sites in India - Introduction to E-Commerce Modules - Advantages and Disadvantages of B2B, B2C modules - Electronic retailing and mails - benefits and limitation of internet advertising.

UNIT - III

EDI - Electronic Data Interchange - Introduction to EDI - Definition - Benefits - Need - Evolution - Limitations of EDI - EDI transactions and EDI applications - SMTP-POP and FTP protocols - EDI Communications.

UNIT - IV

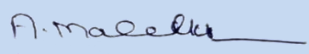
E-Commerce supporting functions - Value Chain - Business strategy in an Electronic age - Supply Chain Management (SCM) - Value Chains in E-Commerce - Value Chain Management - The Value Chain Porter's Value Chain - Inter Organizational Value Chain.

UNIT - V

Internet - Developments - Components - Users - Internet Age Systems - Electronic payment system - authentication of payment - mode of payment - Risk in EPS - Digital signature - Encryption - Electronic Certificate - Computer Crimes - Securities in E-Commerce.


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CERTIFICATE IN ENTREPRENEURIAL DEVELOPMENT

I. COURSE TITLE : Entrepreneurial Development

II. OBJECTIVE

1. To understand different methods to assess the attractiveness of business opportunities.
2. To understand what characterizes an attractive business opportunities and common pitfalls during entrepreneurial process.

III. OUTCOME

1. To understand the key risks and the most effective processes in bringing different types of product and services to market.
2. To understand different entrepreneurship theories and their implication.

IV. SYLLABUS

Unit – I

Entrepreneurship – Meaning – Importance. Types – Role of Entrepreneurs in Economic Development

Qualities of an Entrepreneur – Entrepreneurship as a career.

Unit – II

How to start Business – Product selection – Form of ownership – plant location – Land, Building. Water and power – Raw Materials - Machinery – Man power – Other Infrastructural facilities – Licensing Registration and

local

byelaws- B Plan.

Unit – III

Institutional arrangement For Entrepreneurship Development – D.T.C., I.T.C.O.T., S.T.D.C.O., N.S.I.C., S.I.S.I.

Institutional Finance to Entrepreneurs. T.I.I.C. S.T.D.B.I, Commercial Banks – Incentives to small scale Industries.

Unit - IV

Project Report – Meaning and Importance – Project Identification – Contents of a Project Report - Formulation of a project report – Project appraisal – Market Feasibility- Technical Feasibility Financial Feasibility and Economic Feasibility.

Unit – V

Entrepreneurship Development in India – Women Entrepreneurship in India – Sickness in small scale industries and their remedial measures

V. REFERENCEBOOKS:

S.No	Title	Author/s
1	Entrepreneurship Development in India	<u>A.K.Bhatia</u>
2	Entrepreneurial Development Principles, Policies and <u>Programmes</u>	P. SARAVANAVEL Kay, Ess, Pee, Kay.
3	Dynamics of Entrepreneurial Development in India	VASANT DESAI Himalaya Publishing House.

VI. Eligibility for Admission

Minimum +2 (open to all on their options)

VII. Duration of the Course:

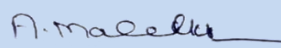
30 hours (1 semester)

VIII. Examination/ Evaluation Components

Internal 40	External 60
Average of two tests = 20 marks	Section A- True or False = 10 marks
Assignment = 5 marks	Section B- 5 out of 8 (4 marks) = 20 marks
Quiz = 5 marks	Section C- 3 out of 5 (10 marks) = 30 marks
Field Visit/ Case Study – Record = 10 marks	


PRINCIPAL
SRI SARADA COLLEGE FOR WOMEN
(Autonomous)
TIRUNELVELI - 627 011




Coordinator - IQAC
Sri Sarada College for Women (Autonomous),
Tirunelveli-627 011