

**ETHIRAJ COLLEGE FOR WOMEN**  
**DEPARTMENT OF BUSINESS ADMINISTRATION**  
**VALUE ADDED COURSE SYLLABUS**

**COURSE TITLE: EMPLOYABILITY SKILLS TRAINING**

**COURSE DURATION: 30 HOURS**

**UNIT I : Quantitative Ability- 1**

Indices and Surds- Logarithms- Simple Equations- Ratio–Proportion–Variation- Percentages– Profit & Loss–Partnerships- Simple & Compound Interest- Numbers- Averages– Mixtures– Alligations- Quadratic Equations.

**Unit II: Quantitative Ability-2**

Progressions- Time and Work – Pipes and Cisterns- Time and Distance- Probability- Permutations & Combinations and Number System and exercises related to the topic.

**Unit III: Verbal and Reasoning**

The puzzles and games test -Logical reasoning skills - Verbal ability – Vocabulary (antonyms and analogies and synonyms, Sentence completion, Reading comprehension)-Deductions- Analytical Reasoning- Non Verbal Reasoning- Pattern completions.

**Unit IV: Qualitative Ability – 1**

Grooming Standards- Being Market Ready- Levels of Communication- Team working- Public speaking- Decision Making Skills.

**Unit V: Qualitative Ability -2**

Self branding- Self- SWOT- Sessions on Group Discussion- Personal Interviews and Career orientation.

*S. Kothari*

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ETHIRAJ COLLEGE FOR WOMEN  
Chennai - 8

## STATISTICAL PACKAGE FOR SOCIAL SCIENCES (SPSS)

**Teaching Hours:40**

**Credits:2**

### **COURSE OBJECTIVES:**

1. To enable the students to tabulate and code data using SPSS.
2. To equip students to apply statistical tools to test the relationship between variables and interpret the results graphically.

### **COURSE OUTLINE:**

#### **UNIT I:**

Introduction Type of Scale of Measurements - Choosing appropriate scale and measurement to the data - Preparing codebook. Getting to Know SPSS: Starting SPSS- Working with data file - SPSS windows- Menus - Dialogue boxes. Preparing the Data file: Creating data file and entering data - Defining the variables - Entering data - modifying data file- import file. Screening and cleaning data - Manipulation of data.

**(10 hours)**

#### **UNIT II:**

Preliminary Analysis Descriptive statistics - Statistical techniques: Correlation: Pearson product moment correlation - Spearman rank correlation - Partial correlation - Simple linear regression - Multiple Linear Regression - Factor Analysis.

**(10 hours)**

#### **UNIT III:**

Statistical techniques: Compare means One sample and two independent sample t test Paired sample t test - One way Analysis of variance - Two way - Non-Parametric Statistics Independent Chi square Test - Mann-Whitney test - Wilcoxon signed rank test – Kluskal Wallis test- Submission of Live Project Report.

**(20 hours)**

## **RECOMMENDED TEXTBOOKS:**

1. Darren George & Paul Mallery, IBM SPSS Statistics 23 Step by Step: A Simple Guide and Reference 2016
2. Van Den Berg RG 201 S, I .2.1 SPSS Combining data with syntax and output, SPSS Tutorials, 2016

## **WEB RESOURCES:**

1. <https://www.uvm.edu/ftstatdhtx/fundamentals9/SPSSManual/SPSSLongerManual/SPSSChapterJ.pdf>
2. <https://www.slideshare.net/davidmbwiga1990/spss-lecture-notes>

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## LIFE HEALING THERAPIES

**Teaching hours:40**

**Credits:2**

### **COURSE OBJECTIVES:**

1. To enable the students to inculcate the art of breathing techniques, Asanas, and Mudras.
2. To help students experience stress relief and rejuvenation.

### **COURSE OUTLINE:**

#### **UNIT 1:**

A brief study of Human Anatomy- Yoga- Introduction- Health Benefits- Relevance of the Five Elements- Pranayama techniques-Surya Pranayama- Nadi Shuddhi and Bastrika- Diet.

**(10 hours)**

#### **UNIT 2:**

Meditation – Introduction- Alpha level of Mind- Subconscious Mind- Goal Visualization- Guided Meditations- Positive Affirmations- Symbols and Switch words- Acupressure points and benefits.

**(10 hours)**

#### **UNIT 3:**

Practice of Basic Joint Exercises – Few Asanas- Meditation- Relaxation- Cleaning process and Rejuvenation—Mudras.

**(20 hours)**

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**DEPARTMENT OF BANK MANAGEMENT**

**VALUE ADDED COURSE – YUSTART**

**SYLLABUS**

**TEACHING HOURS** :30

**CREDITS**

**2**

**COURSE OBJECTIVE:**

- Develop an Entrepreneurial mindset by learning key skills
- Understand the DNA of an Entrepreneur and assess their strengths and Weakness from an entrepreneurial perspective
- To develop the entrepreneurial mindset

**TOPICS COVERED:**

- Meaning and Concept of entrepreneurship
- History of entrepreneurship development
- Role of Entrepreneurship in economic development
- Myths about entrepreneurs
- Types of Entrepreneurs
- Why to become entrepreneur
- The skills and Traits required to be an Entrepreneur
- Creative and Design Thinking
- Entrepreneurial Success Stories
- The entrepreneurial Decision process
- Business Idea Generation
- Business Plan Preparation
- Feasibility Study
- Usage of Business Model Canvas Tool
- Strategies of Funding
- Communication Barriers
- Digital Marketing

**Ethiraj College for Women (Autonomous), Chennai -08**

**Department of Physics**

**Value Added Course - Maintenance of Modern Equipments**

**L-T-P: 2 - 0 - 0**

**Total Hours: 30 hours**

**Credits: 2**

**Course Objective:**

1. The Course helps students across disciplines to understand the fundamentals of electricity.
2. The students would be able to demonstrate the applications of Physics and Electrical Sciences in daily lives.
3. This discourse imparts to the students the prerequisite knowledge to maintain home appliances by troubleshooting minor errors; whilst still being aware of precautionary measures.

**Unit 1: Basic Concepts of Electricity**

Classification of electrical materials – conductor, semiconductor and insulators – (relation between electrical resistivity and conductivity – properties of electrical heating materials – ohm's law – voltage, current (direct and alternating). 10 hours

**Unit 2: Simple Electric Circuits and Components**

Battery – electric circuits – wattles current – electronic choke – transformer – switches – fuses – polarity test in DC – grounding – neutral and earth – circuit breaker – relay – stabilizer – inverters - UPS (ON line and OFF line) – soldering practice – types of solders – flux and methods. 10 hours

**Unit 3: Home Appliances and Safety Measures - An Overview**

Fundamental theories, working and fault detection of electrical gadgets – electric iron – electric kettle – electric cooking range (multi-range heat control) – microwave – refrigerators – hair dryers – washing machine – live wire – precautions. 10 hours

**Books for Study**

1. Fundamentals Of Physics, Alan Giambattista, Betty Richardson, Robert C. Richardson, Special Indian Edition, 2008, McGraw-Hill Education (India) Pvt Limited, ,2010.
2. Repair of home appliance, sector: electrical, for modular employable skills, No. 1,2, and 3 developed by National Instructional Media Institute, CTI Campus, Chennai.
3. Handbook Of Repair And Maintenance Of Domestic Electronics Appliances, Shashi Bhushan Sinha (Author), BPB Publications, 2016.

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## VALUE ADDED COURSE

### WEB DESIGNING

Enable the students to

1. Understand the principles of creating an effective web page
2. Define terms associated with basic Web page development.
3. Describe the use of various tags in an HTML document.
4. Develop Web pages that incorporate a variety of features found in web applications

#### **Course Outline:**

##### **Unit - I:**

Internet Basics – Introduction to HTML and HTML 5 – Basic structure – Creating and saving HTML document – Viewing a web page – Basic HTML tags: Heading tags – Paragraph and break tags – Bold and Italics – HTML Lists: Ordered - Unordered list and Definition list – Working with Image: Insert – Border - Align – Alternate text.

[10 hours]

##### **Unit - II:**

CSS: Introduction – Working with styles – Working with Background properties – Working with Text properties – Working with Font properties – Working with List properties – HTML Form: Create and adding controls to HTML form – Email - Frame: Introduction to frames – Frame tag – Frameset tag

[20 hours]

##### **Unit - III:**

HTML 4 and HTML 5 Tables – Creation – Caption – Heading – Border – Align – Width – Background colour – Cell padding – cell spacing – Row and column span - Hyperlink: Internal and External - Using image as links – Creating Images Maps – Multimedia: Audio and Video – Embedding Multimedia on web page – Creating a link to a Multimedia file - Using the < object > tag to insert objects.

[20 hours]

### Recommended Text Books

S. No	Title of the book	Authors	Publishers / Edition	Year of publications
1	Web Enabled Commercial Application Development Using HTML, JavaScript, DHTML and PHP	Ivan Bayross	BPB Publications, Fourth Revised Edition	2010
2	HTML 5 in Simple Steps	KogentLearning Solutions Inc	Dreamtech Press	2014

### E-Learning Resources:

S.No.	URL
1	<a href="https://www.w3schools.com/html">https://www.w3schools.com/html</a>
2	<a href="https://www.tutorialspoint.com/html5">https://www.tutorialspoint.com/html5</a>
3	<a href="https://html.com">https://html.com</a>

### Teaching Methodology:

Chalk and Talk, OHP, LCD, Seminar, Practical Demonstrations, Discussion, Program writing.

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**DEPARTMENT OF BANK MANAGEMENT**  
**VALUE ADDED COURSE – ADVANCED EXCEL**  
**SYLLABUS**

**TEACHING HOURS** :30

**CREDITS** 2

**COURSE OBJECTIVE:**

- Aims to give basic understanding about MS Excel
- To give hands on training of the software
- Various functions of Excel

**TOPICS COVERED:**

- Basics of Excel
- Formatting tools and options
- Various functions – Mathematical, Statistical, Text, Date, and Time, Logical, Lookup, Financial, etc. Various tools in Excel for Managing Manipulating Data
- Power Query and Power Pivot
- Charts and Pivot Charts
- Interactive Dashboards
- Handling Errors and other useful
- Features of Excel

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**ETHIRAJ COLLEGE FOR WOMEN (Autonomous)**

**DEPARTMENT OF MATHEMATICS (SS)**

**VALUE ADDED COURSE**

**Course Title : Common Aptitude Mathematics**

**Total Hours : 40 Hours**

**Credits : 1**

**Course Objectives :**

**Enable the students to**

- enhance the problem solving skills.
- improve the basic Mathematical skills.
- train to face competitive examinations.

**UNIT – I LOGICAL REASONING**

Logical reasoning using Venn diagram, Series classification, Odd man out.

**UNIT – II VERBAL REASONING**

Blood relations, Direction sense, Sitting arrangements.

**UNIT – III ARITHMETICAL ABILITY**

Averages, Ratio and Proportions, Permutations and Combinations .

**Recommended Textbook :**

Quantitative Aptitude by R.S.Agarwal , S.Chand & Co Ltd .,2007.

**Course Outcomes :**

**Upon Completion of this course the students will be able to**

- detect, identify and evaluate the aptitude problems.
- solve mathematical logic based problems easily.
- crack competitive exams

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**Ethiraj College for Women (Autonomous) Chennai-08**  
**Department of Chemistry**  
**Common to all Disciplines**

**Title of the Course: Dyeing & Printing of Fabrics**

**(40 Hrs)**

**Credits: 2**

**Objectives:**

1. To have a knowledge about the types and characteristics of dyes.
2. To impart skill in dyeing and printing of textiles.
3. To inculcate entrepreneur skills in textiles dyeing.

**UNIT-I: Dyeing** - Condition for a dye, color & constituents – Chromophores & Auxochromes- Classification of Dye-stuff- Natural dyes: vegetable Animal, mineral – Synthetic dyes: Acid dyes, direct dyes, mordant dyes, vat dyes, sulphur dyes, Azodyes – Basic methods of Dyeing – Stock dyeing, top dyeing, dope dyeing, beck dyeing & Vacuum dyeing.

**(15Hrs)**

**UNIT-II: Printing**- Basic methods of printing- Direct, Discharge, Revist, Block, Screen printing & Roller printing – Advantages & Disadvantages, Transfer printing- Dry heat, wet heat & its advantages, Bathik, Tie & Dye & Kalamkari.

**(10Hrs)**

**UNIT-III: Practicals:** Block printing, Bathik, Tie & Dye and Kalamkari

**(15Hrs)**

**Reference:**

1. Fibre to Finished Fabric – A Simple Approach - Edited by Susan George Vanaja Muralidharan
2. Textiles – Fibre to Fabrics – Dr. Bernard, P Lorberman
3. Dyeing and screen printing on textiles by Joanna kinnersly – Taylor.

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# CERTIFICATE COURSE IN LABORATORY TECHNIQUES

**DURATION : 6 MONTHS**

## **UNIT I : INSTRUMENTATION**

- a) Microscopy - Principles, types of microscopes – micrometry.
- b) Colorimetry - Principles and working methods of colorimeter and spectrophotometer.
- c) Chromatography - Principles and working methods – paper and thin layer chromatography.
- d) Electrophoresis - Principles and applications – Agarose and polyacrylamide gel electrophoresis.
- e) Centrifuge - Principles and applications – Types – simple and ultra centrifuge.

## **UNIT II : HAEMATOLOGY AND IMMUNOLOGY**

- a) Blood cell count - Total RBC, WBC, D.C. – Estimation of Hb, ESR, Blood grouping.
- b) Widal test, Latex agglutination, ASO, CRP, RA factor, pregnancy test.
- c) Estimation of sugar – blood and urine sample.
- d) ELISA and Western blot.

## **UNIT III : BACTERIOLOGY**

- a) Aseptic techniques.
- b) Culture media preparation – agar slants, agar plates and agar deeps.
- c) Isolation of bacteria – serial dilution, pure culture techniques – pour plate, spread plate and streak plate.

#### UNIT IV: PATHOLOGY

- a) Identification of pathogenic bacteria.
  - i) Staining – simple and differential.
  - ii) Biochemical tests for identification of pathogens.
  - iii) Test for antibiotic sensitivity.
- b) Identification of pathogenic fungi.
  - i) Mold study, slide culture method.
  - ii) Staining method

#### UNIT V : QUALITY ANALYSIS

Bacteriological examination of

- a) Water
- b) Soft drinks *Alin*
- c) Food products */see notes*

**Eligibility :** Undergraduates – Biology, Chemistry, Physics, Biochemistry and Microbiology / Plus two with Biology and Chemistry.

*4000/-*

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Chennai - 8

*20 students / Batch*

**PG AND RESEARCH DEPARTMENT OF ZOOLOGY**

**VALUE ADDED COURSE BROCHURE**

**WILDLIFE CONSERVATION**

(20 hours theory; 10 hours practical sessions)

(ONCE IN A YEAR)

Commenced from 2019

**OBJECTIVES**

The primary aim of the course to

- Build up scientific knowledge on wildlife resources.
- Increase public awareness and appreciation of the technical capabilities of restoring wildlife populations and degraded habitats
- Discuss, evaluate, and apply scientific principles to the ecology and conservation of wild vertebrates.
- Train personnel at various levels for conservation and management of wildlife.
- Provide a nurturing environment for animals where visitors can build upon their natural curiosity for animals

**OUTCOME**

The students will be able to

- Face one of the important Civil Services Examination conducted by Union Public Service Commission (UPSC) - Indian Forest Service (IFS)
- Collaborate with international organizations on wildlife research, management and training.
- Apply a conceptual framework to solve problems in animal ecology and make informed management decisions
- Develop implementable ecosystem management principles enabling community-wide recovery
- provide natural science education, to heighten the public's awareness of the environment, and to encourage an appreciation for wildlife

**SYLLABUS**

Biogeography of India: (4 hours)

Trans-Tethys migration – accretion on to Laurasian Plate in Cretaceous – Deccan trap volcanism, Formation of Himalayas, the young fold mountains – Contemporary landscape – Biomes of Indian subcontinent – Major climatic and floristic types and classification.

Mammals of India: (4 hours)

Important mammalian fauna of India – Carnivores (Canids, Felids), lesser carnivores (mustelids, viverrids, ursids) – herbivores (plantigrades and unguligrades); Volant mammals – bats; marine mammals – cetaceans (whales and dolphins); Project Tiger, Project Elephant; major census techniques – camera trap surveys.

Birds of India: (4 hours)

Important birds of India: Wetland birds (waders and divers), residents and vagrants; scrubland birds (migrants and residents); forest birds; birds of prey (raptors and vultures); threatened birds (hornbills, cranes, adjutant storks, pheasants / fowls, vultures); major census techniques, bird ringing programmes.

Cold-blooded vertebrates of India: (4 hours)

Major fishes of India (Edible and wild fishes; endangered and endemic taxa); Pisciculture- some basics; Amphibians of India (frogs, toads, salamander and caecilians); endemic taxa; chytrid fungus; Reptiles of India – crocodiles, turtles/ tortoises, lizards and snakes – Project Crocodile; endangered and endemic reptiles; herpetological census techniques.

Wildlife Conservation in India: (4 hours)

Laws and statutory protection; Animal protection (Indian Wildlife Protection Act); Habitat and Forest Protection (Indian Forest Act); In situ conservation (Protected Area Network: Sanctuaries, National Parks, Tiger Reserves, Biosphere Reserves); Ex Situ conservation centres (zoos, rescue and rehabilitation centres, gene bank); captive breeding, artificial insemination; animal conservation & management.

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## VALUE ADDED COURSE

### HERBAL REMEDIES

#### Course Duration: 45 hours

1. Herbal remedies for facial problems (1+3 hrs)
2. Herbal remedies for hair problems (1+3hrs)
3. Herbal remedies for management of Diabetes Mellitus(1+2hrs)
4. Herbs for Skin care(1+2hrs)
5. Herbal remedies for management of joint pain(1+3hrs)
6. Herbal remedies for management of respiratory illness(1+2hrs)
7. Herbal remedies for management of menstrual problems and nutritional anaemia(1+3hrs)
8. Herbal remedies for management of GI tract disorders(1+3hrs)
9. Herbal remedies for management of obesity(1+3hrs)
10. Herbs used during pregnancy and lactation(1+3hrs)
11. Herbal medicines for healthy liver and kidney(1+3hrs)
12. Herbs as Immunostimulants (1+3hrs)

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**DEPARTMENT OF MATHEMATICS WITH COMPUTER APPLICATIONS**  
**Certificate Course**

**Title of the Paper: "General Aptitude"**

**Credits: 1**

**Hours: 30 hrs.**

**OBJECTIVE:**

- To enhance the problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of competitive examinations.
- To Understand the basic concepts of QUANTITATIVE ABILITY, LOGICAL REASONING Skills
- To Acquire satisfactory competency in use of VERBAL REASONING

**UNIT I: VERBAL REASONING**

Classification- Coding-Decoding- Comparison of ranks- Direction test- Logic Based Venn diagram- Sitting Arrangement – Logical Arrangement of words.

**UNIT II :VERBAL REASONING (CONTD.)**

Blood Relation- Mathematical Operations- Number Puzzles- Clocks – Calendars – Analytical Reasoning.

**UNIT III: NON- VERBAL REASONING**

Completion Of Series – Analogy – Counting of Figures - Completion of Figures.

**Recommended Text:**

A New Approach to Reasoning, Verbal And Non-Verbal.  
Arihant Publications (I) Pvt Ltd, Meerut.  
by  
B.S.Sijwali  
Indu Sijwali.

**Reference Text:** R. Gupta's Guide to General Awareness and baking Aptitude.

Ramesh Publishing House

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**ETHIRAJ COLLEGE FOR WOMEN (Autonomous), CHENNAI-8**  
**DEPARTMENT OF MATHEMATICS (AIDED)**  
**VALUE ADDED COURSE**

**HIGHER LEVEL MATHEMATICS FOR COMPETITIVE EXAMINATIONS**

**Maximum number of students : 40**

**HOURS : 40 Hrs**

**CREDITS : 2**

**OBJECTIVES :**

**To enable the students to**

- **Develop logical reasoning**
- **Develop analytical skills**
- **Face competitive examinations**

**COURSE CONTENT :**

**UNIT- 1 :**

**NON – VERBAL REASONING :**

Non-Verbal Series, Non – Verbal Analogy

**VERBAL REASONING :**

Blood Relation, Direction Sense, Sitting Arrangements

**UNIT- 2 :**

**LOGICAL REASONING :**

Syllogism, Logical Reasoning Using Venn Diagram

Odd Man Out, Series Classification.

**UNIT- 3 :**

**ARITHMETICAL ABILITY :**

Ranking, Averages , Ratio & Proportion, Clocks and Calendar, Profit & Loss.

**UNIT- 4 :**

**DATA INTERPRETATION :**

Bar Graphs, Pie Charts, Coding & De- Coding

**RECOMMENDED TEXT :**

1. A New approach to Reasoning , Verbal and Non- Verbal Reasoning , B.S. Sijwali & Indu Sijwali , Arihant Publications (I) Pvt,Ltd, Meerut.
2. Popular Master Guide Ibps-Cwe, R.Gupta's Ramesh Publishing House, New Delhi.

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**ETHIRAJ COLLEGE FOR WOMEN (AUTONOMOUS) CHENNAI**  
**DEPARTMENT OF BUSINESS ECONOMICS**  
**BASICS OF SPSS- VALUE ADDED COURSE**

**UNIT: I Introduction**

Population and Sample – Observations and Variables – Variables and Scales – Sampling Methods – Types of Data – Framing of Questionnaire: Through literature and objectives of research – Likert scale – Testing of Hypothesis: One-tailed & Two-tailed Hypothesis – Level of Significance

**UNIT: II SPSS Data File**

Opening of a Data file in SPSS – SPSS Data Editor: Variable View – Data View – Entering Data into Data Editor – Saving the Data file – Entering and Manipulating Data: Inserting a new variable – Rearranging the order of variables in variable view – Deleting & Rearranging items – Missing values – Copying SPSS output – Importing Data from Excel File.

**UNIT: III Descriptive Statistics**

Comparing Averages – Chi-Square test with SPSS - Frequency Distribution and Cross Tabulation – Measures of Dispersion: Standard Deviation – Descriptive Statistics with Quantitative Data and Qualitative Data – Independent Sample – t-test - Chi-square test.

**UNIT: IV ANOVA, Correlation and Regression with SPSS**

ANOVA: One factor between subjects

Correlation: Simple and Multiple

Regression: Simple and Multiple

**Reference**

SPSS for You – Rajathi A & P Chandran

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**ETHIRAJ COLLEGE FOR WOMEN**  
**DEPARTMENT OF MICROBIOLOGY**  
**VALUE ADDED COURSE**

**TEACHING HOURS: 30 HOURS (ONLINE)**  
**MEDICAL LABORATORY TECHNOLOGY**

**COURSE CONTENT**

**UNIT I**

**5 Hrs**

**Phlebotomy-** Personal protective equipments. Basic steps for drawing blood specimen by vein puncture. Complications of vein puncture. Specimen rejection criteria. Measurement of pulse and blood pressure. Characteristics of a good technician.

**UNIT II**

**10 Hrs**

**Hematology and coagulation studies.** WBC total count and differential count. Determination of ESR by Wintrobe method. Estimation of hemoglobin and Peripheral smear study.

**UNIT III**

**10 Hrs**

**Serology and Pathology.** ABO grouping, RA, CRP, ASO and Pregnancy test. Basic steps for tissue processing - fixing, embedding, microtome, staining (Hematoxylin eosin stain) and mounting methods. Faeces occult blood test, Estimation of bleeding time, clotting time, Prothrombin time and Activated partial thromboplastin time(APTT )

**UNIT IV**

**5 Hrs**

**Laboratory Quality assessment-** Laboratory Standard Accreditation Boards - NABL, ISO and CAP. Errors - Pre analytical, Analytical and post analytical. List of automated equipments. Precautions to prevent hemolysis. Storage of blood specimens.

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**VALUE ADDED COURSE  
DYSLEXIA - SYLLABUS**

**No of Hours: 40**

**Credits: 1**

**Course objectives:**

1. To identify children with learning difficulties in the normal classroom.
2. To understand teaching methods to overcome learning problems.
3. To help the parent to move in the positive direction.

**Course Outcomes:**

1. Students will be able to assess children with learning difficulties in the normal classroom
2. Students will be able to teach remedial sessions for children with dyslexia and counsel parents of such children

**Unit 1**

**4hours**

Timeline of Learning Disabilities, History of Dyslexia, -Specific Language Disability, Definition of Dyslexia. – Characteristics and Symptoms related to age of the child and category, Types of Dyslexia - based on brain areas and functions.

**Unit 2.**

**6 hours**

Dyslexia- Reading difficulty – specific symptoms, Stages of reading, steps in remedial teaching. Spelling difficulty –symptoms, teaching methods. Dysgraphia – writing difficulty, specific symptoms and instructional activities in remedial teaching. Dyscalculia- math difficulty, specific symptoms, activities and steps in remedial teaching

**Unit 3**

**4 hours**

Attention Deficit Hyperactivity Disorder- Types, symptoms, positive traits, handling methods at school and home. Psychological Tests – History of Intelligence tests, Intelligence Scales and Classification of IQ.

**Unit 4**

**6 hours**

Teaching Methods - Multisensory teaching - Phonics methods - Multiple Intelligences. Parent Counseling – Psychosocial problems, Counseling, Family centered approach, Family centered care. Behaviour Management – Analysis of Problem behavior (ABC method), Management strategies.

**Unit 5 Practicals Teaching Practice**

**20 hours**

**Case History - Informal Learning Assessment** of -.Concept -.Phonics-.English – Reading -English Writing -Second Language Reading and Writing –Numbers and ADHD. **Remedial teaching** for Concept -.Phonics-.English – Reading -English Writing -Second Language Reading and Writing –Numbers and ADHD. Submission of Project

**EVALUATION**

<b>Total</b>		<b>100 marks</b>
<b>Theory</b>	<b>50</b>	
External		30 +
Internal		20
<b>Practical</b>	<b>50</b>	
External		40 +
Internal		10

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Chennai - 8

**SPRACHLINGUA CERTIFICATE COURSE  
FOREIGN LANGUAGES  
SYLLABUS**

**GERMAN LANGUAGE**

**TEACHING HOURS: 45**

**COURSE OBJECTIVE**

- Language skills are essential attribute in most professions and help in the advancement of career.
- Job Opportunities International organisations such as UNO, WTO, FAO RBI etc.
- Career opportunities in various sectors such as tourism, embassies, diplomatic service etc.
- Indian MNCs require trained foreign language professionals to open their operations in foreign countries

**COURSE OUTLINE**

**15 Hrs**

**UNIT I**

- 1.1 Alphabets and Introduction to Subject, Object, Verb concepts.
- 1.2 Greetings and Salutations in German - Colors in German
- 1.3 Months of the year / Seasons in German - Numbers in German
- 1.4 Official / Unofficial Time asking and responding in German

**UNIT II**

**10 Hrs**

- 2.1 Asking questions with Normal verbs (E - Materials will be provided- verb list) in German (Ex: Are you learning German here?)
- 2.2 Responding answers with Normal verbs in German
- 2.3 Verb conjugations (E - Materials will be provided- verb conjugation list) in German language
- 2.4 How verb changes for I, You, He, She, We, They Forms.

**UNIT III**

**10 Hrs**

- 3.1 Asking questions and answering accordingly in German language.
- 3.2 Asking questions with Question Words in German language
- 3.3 What, why, where, How, when, How much etc? (Ex: Why are you learning German language in Chennai? Which is the best German class in Chennai?)

**UNIT IV**

**10 Hrs**

- 4.1 Responding answers for the questions asked in German
- 4.2 Asking questions with Modal verbs in German like, can, may, want, must, should (Ex : Do you want to take up German training in Chennai ?)
- 4.3 Responding answers with Modal verbs in German language.

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**B.A. ENGLISH LITERATURE AND COMMUNICATION**  
**CERTIFICATE COURSE – PUBLIC SPEAKING AND PRESENTATION SKILLS**

**TOTAL HOURS: 50**

**CREDITS: 1 (Extra)**

**COURSE OBJECTIVES:**

This Course aims to

- Help students learn how to develop ideas and plan and structure a presentation.
- Enable students overcome their fear of speaking in public and help them gain self-confidence
- Facilitate and encourage students to develop their skills in oral presentation and effective use of latest presentation techniques.

**Unit 1: Public Speaking skills**

**10 Hours**

What is Public Speaking?

Communication Process – Oral and Written communication

Types of Speeches - Demonstrative/Informative/Persuasive/Debating/ Ceremonial

Types of Delivery – Impromptu / Extemporaneous/ Reading from Manuscript/ from Memory

**Unit 2: Content Creation**

**10 Hours**

Researching Speech Topics

Preparing Speech outlines

Developing and supporting ideas- Building an argument

Language and Style

    Political correctness

    Use of rhetoric and reason

Sourcing Materials

**Unit 3:**

**10 Hours**

Building Group Rapport

Dealing with fear

Building Self-confidence

Effective use of Stage Space

Types and uses of Visual Aids

**Unit 4: Verbal and Non-verbal Aspects**

**10 Hours**

Voice Modulation

    Pitch

    Tone



Pauses  
Pace  
Fluency – enunciation/precision of utterance  
Nonverbal Aspects  
Body language – Gestures and Postures

**Unit 5: Practice sessions**

**10 Hours**

Practical Exposure and analysis of Speeches by eminent personalities  
Audio clips and Video Clips

*S. Kothari*

Principal  
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Chennai - 8

**B.A. ENGLISH LITERATURE AND COMMUNICATION**  
**CERTIFICATE COURSE – ENGLISH FOR COMPETITIVE EXAMS**

**TOTAL HOURS: 50**

**CREDITS: 1**

**COURSE OBJECTIVES**

This course aims to:

- Enhance comprehension and language skills.
- Improve competency levels and aid in taking up aptitude tests and competitive exams in English.

**COURSE OUTLINE:**

**Unit I**

**4 hours**

- Introduction to competitive exams
- Identifying the components tested in exams
- Pre-test

**Unit II – Reading**

**10 hours**

- Techniques  
(Skimming, scanning, summarizing, previewing and predicting, speed reading, choosing appropriate titles etc.)
- Comprehension passages

**Unit III – Vocabulary**

**15 hours**

- Word groups  
(Alphabetical word list, homonyms, homophones, prefixes, suffix, collective nouns, foreign phrases, words often confused, idioms and phrases)
- Mixed exercises

**Unit IV - Grammar**

**15 hours**

- Basics of Grammar  
(Parts of speech, tenses, SVA)
- Context based grammar
- Elements of a sentence
- Error correction

**Unit V**

Mock exams and sample papers

Post-test

**6 hours**

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**ETHIRAJ COLLEGE FOR WOMEN (AUTONOMOUS)**

**PG & RESEARCH DEPARTMENT OF COMMERCE**

**FINANCIAL MARKET PROFESSIONAL PROGRAM**

**CERTIFICATE COURSE – “CAPITAL MARKETS”**

Duration of the Course: 45 hours comprising of 3 modules of 15 hours each

1. Module I : Fundamentals of Capital Markets  
No. of Hours : 15 hours  
Fees : Rs. 1000/student  
Certification : NSE, Finmark & Ethiraj College
2. Module II : Securities Market and Risk Management  
No. of Hours : 15 hours  
Fees : Rs. 1000/student  
Certification : NSE, Finmark & Ethiraj College
3. Module III : Mutual Fund Distributors  
No. of Hours : 15 Hours  
Fees : Rs. 1000/student  
Certification : NSE, Finmark & Ethiraj College

**FUNDAMENTALS OF CAPITAL MARKETS**

**TOTAL HOURS: 45**

**LTP: 15 5 25**

**CREDITS : 2**

**COURSE OUTLINE**

**UNIT I**

Structure of the financial markets in India-Problems of the unorganized sector-Role of the various Regulators-Demonetization, Digitalization & Transformation of Indian Economy into a Cashless society-Role of Payment Banks-NBFCs-Importance of CASA for a bank-Difference between Savings and Investment-Appreciating Risk-Importance of the Time Value of Money-Evolution of the Indian Financial Markets **(8 hrs)**

## **UNIT II**

Primary Markets: Understand the nature and functions of the primary market-Difference between various types of public issues-Categories of issuers in the primary market-Regulatory framework for primary markets-Types of investors in the primary market-Types of public issues of equity shares-Pricing process in a public issue of shares-Public issue process-Features of a prospectus-Process of applying to a public issue-Process of listing of public issues-Process of rights issues in equity-Process and concepts in public issue of debt securities-Private placement process in equity and debt. Secondary Markets: Role and functions of the secondary markets-Market structure and participants in the secondary markets-Role of brokers and processes for client acquisition-Process of trade execution in the secondary market-Process of trade settlement-Market information available **(12 hrs)**

## **UNIT III**

Types of Capital: Difference between equity and debt securities-Features of equity capital-Features of debt capital-Factors that influence the choice between equity and debt capital for issuers-Variou aspects of investing in equity-Concepts and elements of financial analysis and valuation-Commonly used terms in equity investing-Risk and return from investing in equity-Basic features of debt instrument-Types and structure of debt instruments-Concepts and terms relating to debt securities-Benefits and risks of investing in debt securities-Factors that influence the choice between equity and debt for investors-Concepts of hybrid instruments and their features **(8 hrs)**

## **UNIT IV**

Introduction to Market Indices. Introduction to Mutual Funds. The OTC Market. Depositories and their Role. Methods of Analyzing the Share Market. Importance of Ratios. Credit Rating and its Role. Mutual Funds: Understand the meaning and features of a mutual fund-Key terms and concepts associated with mutual funds-Functioning of a mutual fund and roles of constituents in the mutual fund-Regulatory framework for mutual funds-Types of open-ended mutual fund products-Types of close-ended mutual fund products-Processes associated with investing in

mutual funds-Uses and process of conducting systematic transactions-Information available on mutual funds for investment decision making-Costs and benefits of investing in mutual funds-ETFs (12 hrs)

#### UNIT V

Introduction to Derivatives Markets. Introduction to Financial Planning and Securities Markets: Financial planning framework for investing in securities-Steps in financial planning-Asset allocation process and diversification-Allocation of securities in the financial planning process.

(5 hrs)

*S. Kothari*

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Chennai - 8

**Ethiraj College for Women (Autonomous), Chennai**

**Department of Physics**

**Certificate Course - Physics for Competitive Exams**

**Total Hours: 40 hours**

**Credits: 2**

**Course Description**

The Course is started with the objective for the students across disciplines to enable them crack questions ranging from the fundamental concepts to tougher levels. The Course is designed for students who approach State and National Level entrance examinations like TNPSC, UPSC, RRB and other Armed Forces Exams. The Course concentrates in the basics, giving core importance in kindling the problem solving and analytical skills of the students.

**Unit I: Mechanics and Properties of Matter**

Basic principles of vector analysis – velocity and acceleration – relative velocity – mass and weight – work and energy – power – impulse and momentum – Rotation: angular velocity, angular momentum – centripetal and centrifugal forces – banking of tracks.

Pressure in a fluid – viscosity of a fluid – terminal velocity – surface tension of a liquid – excess of pressure inside a drop and bubble. 15 hours

**Unit II: Heat, Thermodynamics and Statistics**

Thermodynamic variables – latent heat of vaporization – latent heat of fusion – internal energy – laws of thermodynamics – carnot engine and its efficiency – entropy – change in entropy.

Statistical Mechanics - Introduction to M-B, B-E and F-D Statistics.

Quantum Statistics – Introduction - Concept of photons – frequency, wavelength and energy – de Broglie's hypothesis – photoelectric emission and work function of a metal – Bragg's law - uncertainty principle. 10 hours

**Unit III: Optics and Wave Physics**

Reflection and refraction – Laws – Snell's law – total internal reflection – critical angle – focal length of lens - dispersion – basic concepts of interference and diffraction – Fresnel and Fraunhofer diffraction – Polarisation - Brewster's law - electromagnetic spectrum.

**Electricity and Magnetism**

Charge and current, resistance in series and parallel, ohm's law – capacitance of a capacitor – energy stored in a capacitor – capacitor in series and parallel – magnetic effect of current – Biot Savart's law – force on a moving charge in a magnetic field – force on a current carrying conductor in a magnetic field. 15 hours

**Books for Study**

Objective Physics: A Collection of Highly useful Questions for Competitive Examinations, R. Gupta's, 13<sup>th</sup> Edition, Ramesh Publishing House, 2013.

*S. Kotthari*  
Principal

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Chennai - 8

**VALUE ADDED COURSE  
INTRODUCTION TO GENDER STUDIES**

**Course objective**

This course will introduce concepts related to gender ideology and the social construction of gender in Indian context. It will highlight the role of social institutions in upholding the gender ideology and have a critical analysis of social reality in the fields of health, economy, media and governance. Further it gives a brief picture of gender mainstreaming by international and national actors to promote gender parity.

**Unit 1**

Social construction of gender- Sex and Gender- Nature versus Culture Gender roles- Gender discrimination- Gender equity- Gender equality-and Empowerment. Patriarchy- Caste- Class- interlink of issues in Indian context

**Unit 2**

Role of Social Institutions- Family- School- Media- Religion and Legal concerns. Socialization process- Control of social norms – Society – Women the vanguard of culture. Gender violence in private and public sphere-legal measures to curb these social evils Family and

**Unit 3**

Women and Health :

Health a gender issue- status of women's health in India- health care services in India- food and nutrition- reproductive health- occupational health health policy in India- maternity benefit act – debates around Pre Natal Diagnostic Test Act-promotion of women's health in international measures

**Unit 4**

Women and Economy :

Gender role expectations and work- Women's representation in the workforce unorganized organized-women's contribution through unpaid work- Impact of globalization on women's work. New economic policy and its impact on women's employment- training, skills, income Generation- migration of women...

**Unit 5**

Women and Media :

Portrait of women in media- women as major consumers- cosmetics- body health-beauty concepts- toys for different sex- objectification of women. Women and Governance International conferences- Changes in development approaches – Beijing Platform for Action- Women as change agents- India's inclusive strategy and women in decision making bodies opportunities and challenges.

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Princip.

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