



MAHENDRA ARTS & SCIENCE COLLEGE **(Autonomous)**

Affiliated to Periyar University, Salem.

Accredited by NAAC with 'A' Grade & Recognized u/s 2(f) and 12(B) of the UGC Act 1956
Kalippatti – 637 501, Namakkal (Dt), Tamil Nadu.

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Value-added Courses
2017-2018



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Kalippatti - 637 501, Namakkal (Dt), Tamil Nadu.

Criterion I: - Curricular Aspects

1.3 Curriculum Enrichment

1.3.2 List of value-added courses for imparting transferable and life skills offered during last five years.

Value-Added Courses - 2017-2018

S.No.	Course Code	Name of the Value-Added Course
1.	CSVAC01	Desktop Publishing
2.	MAVAC01	Quantitative Aptitude Techniques
3.	COVAC01	Tally
4.	BTVAC01	Mushroom Cultivation
5.	PHVAC01	Troubleshooting Electrical Appliances
6.	CSVAC02	Web Designing
7.	ENVAC01	Communicative Skills
8.	BTVAC02	Bio-fertilizer Production
9.	PHVAC02	Mobile Phone Servicing

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MAHENDRA ARTS & SCIENCE COLLEGE

(Autonomous)

Kalippatti (PO) - 637 501, Namakkal (DT)



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Kalippatti – 637 501, Namakkal (Dt), Tamil Nadu.

Department of Computer Science & Applications

COURSE NAME – DESKTOP PUBLISHING

Academic Year : 2017-2018

Key Features

Desktop Publishing

- ➔ Creating a Logo Design
- ➔ Merge two or more pictures using the layer option
- ➔ Create greeting card for some festivals using Corel Draw
- ➔ Creating Photo Studio Images and Work
- ➔ Creating Flex Printing Work Using Corel Draw.
- ➔ All Advance work of Photoshop Using Corel Draw



COURSE CO-ORDINATOR

Mrs. M. KARTHIKA, Assistant Professor

WEB INFO:

www.mahendraarts.org

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KALIPPATTI - 637 501, NAMAKKAL (DT), TAMIL NADU.

DEPARTMENT OF COMPUTER SCIENCE &
APPLICATIONS

ACADEMIC YEAR 2017 - 2018

VALUE ADDED COURSE - WEB DESIGNING



KEY FEATURES

- Define the principle of Web page design
- Define the basics in web design
- Visualize the basic concept of HTML.
- Recognize the elements of HTML.
- Introduce basics concept of CSS.
- Develop the concept of web publishing

Course Co-Ordinator

Mrs.M.KARTHIKA, Assistant Professor.

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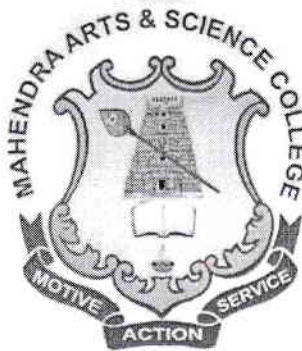
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KALIPPATTI-637501



SYLLABUS FOR VALUE-ADDED COURSE CHOICE BASED CREDIT SYSTEM

**FOR THE STUDENTS ADMITTED FROM
THE ACADEMIC YEAR 2017 – 2018 ONWARDS**


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Kalippatti – 637 501, Namakkal (Dt), Tamil Nadu.

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

SYLLABUS FOR VALUE - ADDED COURSES (For UG Programmes) Academic Year 2017 – 2018

I. REGULATIONS:

These regulations shall take effect from the academic year 2017 - 2018, i.e., for students who are to be admitted to the first year of the course during the academic year 2017 - 2018 and thereafter.

1. Objectives of the Course:

The objective of the course is to introduce career and market-oriented, skill enhancing add-on courses that have utility for job, self-employment and empowerment of the students.

- Ability to apply knowledge in Mathematics, Physics, Chemistry, Biotechnology, Computer science, etc.,
- Ability to design, analyze and conduct experiments
- Ability to meet desire needs of industry, society and governments
- Ability to understand professional and ethical responsibility.
- Ability to engage in lifelong learning
- Ability in a knowledge of contemporary issues

2. Duration of the Course:

The candidates can choose any one Value – Added course from a list of courses and complete the same within one academic year.

Examinations:

The course of study shall be based on Non-Semester pattern and the examinations shall be conducted at the end of the academic year.


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3. Structure of the Programme:

Course Category	Title of the Course	Course Code	Hrs / Week		No. of Credits	Max. Mark		
			L	P		Int.	Ext.	Total
	Web Designing	CSVAC02	1	2		100	-	100

IV – SCHEME OF EXAMINATION:

1. Question Paper Pattern for Theory Papers:

Time: Two Hours

Maximum Marks: 50

Part – A Answer all the Questions $10 * 1 = 10$ Marks(Objective Type)

Part – B Answer all the Questions $10 * 2 = 20$ Marks

Part – C Answer any Four out of Seven Questions $4 * 5 = 20$ Marks

2. Question Paper Pattern for Practical Papers:

Time: Three Hours

Maximum Marks: 50

3. Passing Minimum:

The Candidates shall be declared to have passed the examination if he/she secures not less than 40 marks in total with minimum of 20 marks in the theory examinations and 20 marks in the practical examinations.

V – ISSUE OF CERTIFICATES:

Certificate will be issued to students once they pass the examination, meeting all the requirements detailed above.


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Kalipatti (PO) - 637 501, Namakkal (DT)

Paper Code	Value-Added Course
CSVAC02	Web Designing

Course Objectives:

The student will be able to

- Define the principle of Web page design
- Define the basics in web design
- Visualize the basic concept of HTML.
- Recognize the elements of HTML.
- Introduce basics concept of CSS.
- Develop the concept of web publishing.

UNIT-I

Web Design Principles: Basic principles involved in developing a web site - Planning process - Five Golden rules of web designing - Designing navigation bar - Page design - Home Page Layout - Design Concept. **Basics in Web Design:** Brief History of Internet- What is World Wide Web- Why creates a web site- Web Standards.

UNIT-II

Introduction to HTML: What is HTML - HTML Documents - Basic structure of an HTML document- Creating an HTML document- Mark up Tags- Heading-Paragraphs- Line Breaks- HTML Tags.

UNIT-III

Elements of HTML: Introduction to elements of HTML- Working with Text- Working with Lists, Tables and Frames- Working with Hyperlinks, Images and Multimedia- Working with Forms and controls.

UNIT-IV

Introduction to Cascading Style Sheets: Concept of CSS- Creating Style Sheet- CSS Properties- CSS Styling(Background, Text Format, Controlling Fonts) - Working with block elements and objects- Working with Lists and Tables - CSS Id and Class - Box Model(Introduction Border properties, Padding Properties, Margin properties).

UNIT-V

Introduction to Web Publishing or Hosting: Creating the Web Site - Saving the site - Working on the web site - Creating web site structure - Creating Titles for web pages- Themes- Publishing web sites.

Text Books:

1. HTML 5 in simple steps- Kogent Learning Solutions Inc. Dreamtech Press
2. Creating a Web Page and Web Site- Murray,Tom/Lynchburg, College,2002

Reference Book:

1. HTML, XHTML, and CSS Bible- Steven M. Schafer, 5 Edition, Wiley India.
2. Beginning CSS: Cascading Style Sheets for Web Design - Ian Pouncey, Richard, York. Wiley India.


Course Co-ordinator


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HOD



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(VALUE-ADDED COURSE OFFERED BY DEPARTMENT OF MATHEMATICS) ACADEMIC YEAR – (2017 – 2018)

Course Name: QUANTITATIVE APTITUDE TECHNIQUES

Course Code: MAVACO1

Duration: 30 Hrs.

Offered to: Students of All streams.

COURSE OBJECTIVES

An aptitude test is used to determine an individual's ability, assessing how they are likely to perform in an area in which they have no prior training or knowledge.

In the work world, human resources departments at some companies will use career assessment tests to learn about a potential candidate's strengths and weaknesses.

COURSE OUTCOMES

An aptitude test is an exam used to determine an individual's skill or propensity to succeed in a given activity. Aptitude tests assume that individuals have inherent strengths and weaknesses, and have a natural inclination toward success or failure in specific areas based on their innate characteristics.

COURSE CONTENT

- ✓ Problems on numbers - Problems on Ages
- ✓ Simple Interest – Compound Interest
- ✓ Time & Distance – Problems on Train
- ✓ Area – Volume & Surface Areas
- ✓ Ratio and Proportion – Partnership

COURSE CO - ORDINATOR

Mr. C. JAYAKUMAR, ASSISTANT PROFESSOR.

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SYLLABUS FOR VALUE-ADDED COURSE

OUTCOME BASED EDUCATION - CHOICE BASED CREDIT SYSTEM

**FOR THE STUDENTS ADMITTED FROM
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MAHENDRA ARTS & SCIENCE COLLEGE
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Department of Mathematics

COURSE OBJECTIVES:

- ❖ An aptitude test is used to determine an individual's ability, assessing how they are likely to perform in an area in which they have no prior training or knowledge.
- ❖ In the work world, human resources departments at some companies will use career assessment tests to learn about a potential candidate's strengths and weaknesses.

VALUE-ADDED	Common for All Majors	2016 - 2017
Code: MAVAC01	Quantitative Aptitude Techniques	
Credits: 1		

Objectives:

This course introduces fundamental concepts such as Numbers, system in Quantitative aptitude. It covers concepts such Simple interest, Compound interest, proposition & partnership. It provides technical skills to understand and develop various department examinations like Group Exams, TNPSC, RRB, SSC & IBPS.

Unit I:

Problems on numbers - Problems on Ages. (Section - I: 7, 8)

Unit II:

Simple Interest – Compound Interest. (Section-I: 21 and 22)

Unit III:

Time & Distance – Problems on Train . (Section-I: 17 and 18)

Unit IV:

Area – Volume & Surface Areas (Section-I: 24 , 25 & 35)

Unit V:

Ratio and Proportion – Partnership . (Section - I: 12, 13, 31)

TEXT BOOK:

S.No	Name of the Book	Author	Publisher	Year Of Publication
1.	Quantitative Aptitude for Competitive Examinations	R.S.Aggarwal	S.Chand Co Ltd,152, Anna salai ,Chennai.	2001

SCHEME OF EXAMINATION:

Question Paper Pattern for Value-Added Paper:

Time: 1.30 Hours

Marks: 50

Part A: (10 x 1 = 10)

Answer ALL Questions

Two Questions from Each Unit
(Objective type)

Part B: (20 x 2 = 40)

Answer ALL Questions

Four Question from Each Unit
(Objective type)

Passing Minimum: 50 out of 100.



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PG & RESEARCH DEPARTMENT OF COMMERCE

2017-2018

TALLY

power of simplicity

COURSE FEATURES:

- Utilize resources and tools in their chosen career paths.
- Develop effective communication.
- Work in multidisciplinary professional teams.
- Engagement towards life-long learning for graduates.
- Contribution towards the development and betterment of industry and society.
- Involvement in professional and other service activities.
- Take part in ethical leadership and contribute to their organization and community.

For Further Enquires:

Dr.K.Selvaraj

HOD, Department of Commerce


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VALUE ADDED COURSE

SYLLABUS FOR TALLY

CHOICE BASED CREDIT SYSTEM

FOR THE STUDENTS ADMITTED FROM

THE ACADEMIC YEAR 2017 - 2018


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MAHENDRA ARTS & SCIENCE COLLEGE

(Autonomous)

(Affiliated to Periyar University)

Department of Commerce

B.COM.

ACADEMIC YEAR 2017 - 2018

I. PROGRAMME EDUCATIONAL OBJECTIVES:

- Create interests and bring talents among students to create knowledge across their respective disciplinary lines.
- Efficient and Effective balance breadth with depth in knowledge in undergraduate education prepare students for the global workforce.
- Be an entrepreneur due to innovation and discovery in their identified focus areas.
- Incorporate research and innovation into the learning experience of both undergraduate and graduate students.
- Recognize their level of knowledge and to transfer to industry, laboratories and governments.

II. PROGRAMME OUTCOMES:

- Utilize resources and tools in their chosen career paths.
- Develop effective communication.
- Work in multidisciplinary professional teams.
- Engagement towards life-long learning for graduates.
- Contribution towards the development and betterment of industry and society.
- Involvement in professional and other service activities.
- Take part in ethical leadership and contribute to their organization and community.

III. REGULATIONS:

These regulations shall take effect from the academic year 2017-2018, i.e., for students who are to be admitted to the first year of the course during the academic year 2017-2018 and thereafter.

1. Objectives of the Course:

The objective of the course is to introduce career and market-oriented, skill enhancing add-on courses that have utility for job, self-employment and empowerment of the students.

- Ability to apply knowledge in Accounts, Computer skills, Commerce, Economics, Statistics, etc.,
- Ability to design, analyse and conduct experiments
- Ability to meet desire needs of industry, society and governments
- Ability to understand professional and ethical responsibility.
- Ability to engage in lifelong learning
- Ability in a knowledge of contemporary issues


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2. Duration of the Course:

The candidates can choose any one add-on course from a list of courses and complete the same within one academic year. The course of study shall consist of two semesters with a minimum of 2 credits.

3. Examinations:

The course of study shall be based on Non-Semester pattern and the examinations shall be conducted at the end of the academic year.

4. Structure of the Programme:

Course Category	Title of the Course	Course Code	Hrs / Week		No. of Credits	Max. Mark		
			L	P		Int.	Ext.	Total
	Tally	COVAC01	1	2	2	100	-	100

IV – SCHEME OF EXAMINATION:

1. Question Paper Pattern for Theory Papers:

Time: Two Hours	Maximum Marks : 50
Part – A	Answer all the Questions 10 * 2 = 20 Marks
Part – B	Answer all the Questions (Either or choice) 4 * 5 = 20 Marks
Part – C	Answer any one out of three Questions 1 * 10 = 10 Marks

2. Question Paper Pattern for Practical Papers:

Time : Three Hours	Maximum Marks : 50
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3. Passing Minimum:

The Candidates shall be declared to have passed the examination if he/she secures not less than 40 marks in total with minimum of 20 marks in the theory examinations and 20 marks in the practical examinations.

V – ISSUE OF CERTIFICATES:

Certificate will be issued to students once they pass the examination, meeting all the requirements detailed above.


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VALUE ADDED COURSE - SYLLABUS

Paper Code	Value Added Course	2017-2018
COVAC01	TALLY	

Objectives:

- ✓ To facilitates the students to apply the basic principles of accounting.
- ✓ To develop a expertise in handling the accounting standards.
- ✓ To provide the students about the procedure for preparation of company final accounts.

1. Basics of Accounting

Types of Accounts, Golden Rules of Accounting, Accounting Principles, Concepts and Conventions, Double Entry System of Book Keeping, Mode of Accounting, Financial Statements, Transactions, Recording Transactions

2. Fundamentals of Tally

Getting Functional with Tally, Creation / Setting up of Company in Tally

3: Accounting Masters in Tally

F11: Features, F12: Configurations, Setting up Account Heads

4: Inventory in Tally

Stock Groups, Stock Categories, Godowns / Locations, Units of Measure, Stock Items, Creating Inventory Masters for National Traders.

5: Voucher Entry in Tally

Accounting Vouchers, Inventory Vouchers, Invoicing.

6: Advanced Accounting in Tally

Bill-wise Details, Cost Centres and Cost Categories, Voucher Class and Cost Centre Class, Multiple Currencies, Bank Reconciliation, Interest Calculations, Budgets & Controls, Scenario Management.

7: Advanced Inventory in Tally

Order Processing, Reorder Levels, Tracking Numbers, Batch- ISE Details, Additional Cost Details, Bill of Materials (BoM), Price Levels and Price Lists, Stock Valuation, Zero Valued Entries, Inventory Ageing Analysis, Different Actual and Billed Quantities.

8: Value Added Tax (VAT)

Configuring VAT in Tally, Creating Masters, Entering Transactions, Accounting for Return of Goods, Rate Difference in Purchase / Sales, Accounting for Interstate Transactions, Exempt Transactions under VAT, Purchases from Unregistered Dealers, Claiming ITC on Capital Goods, Inter-State Branch Transfers, VAT Reports, VAT for Composite Dealers.


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9: Central Sales Tax (CST)

Basics of Central Sales Tax (CST), Enabling CST in Tally, Recording Interstate Transactions in Tally, Payment of CST, CST Reports.

10: Point of Sale (PoS)

Features of Point of Sale (PoS) in Tally, Configuring Point of Sale in Tally, Entering POS Transactions, POS Reports.

11: Job Costing

Configuring Job Costing In Tally, Creating Masters for Job Costing, Recording Transactions, Job Costing Reports.

12: Multilingual Capabilities

Configuring Tally for Multilingual Capabilities, Creating Masters, Entering Transactions in Multiple Languages, Transliteration, Generating Reports.

13: Technological Advantages of Tally

Tally Vault, Security Control, Tally Audit, Backup and Restore, Split Company Data, Export and Import of Data, ODBC Connectivity, Web Enabled, Print Preview and Online Help, Printing of Reports and Cheques.

14: Tally.NET and Remote Capabilities

Overview of Tally.NET, Configure Tally.NET Features, Connect Company on Tally.NET, Create Remote Users, Authorise Remote Users, Remote Access.

15: Application Management and Controls

Concept of Control Centre, Installing & Activating Tally, Logging to Control Centre, Managing Accounts using Control Centre.

16: Online Help and Support

Features of Support Centre, Accessing the Support Centre, Using Support Centre.

17: Service Tax

Basics of Service Tax, Configuring Tally for Service Tax, Creating Masters, Entering Transactions, Accounting for Advance Receipts, Accounting for Opening Service Tax Credit, Payment of Service Tax, Service Tax Reports.

18: Tax Deducted at Source

Basic concepts of TDS, Configuring TDS in Tally, Creation of Masters, Processing Transactions, TDS Reports.

19: Tax Collected at Source

Basic Concepts of TCS, Configuring Tally for TCS, Creating Masters, Entering Transactions, TCS Reports.

20: Excise for Dealers

Basic Concepts, Salient Features of Dealer Excise, Enabling Dealer Excise in Tally, Creating Masters, Entering Transactions, Excise Reports, Sales & Purchase

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(Autonomous) Excise in
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Extract.

21: Excise for Manufacturers

Basic Concepts of Excise Duty, Configuring Excise in Tally, Creation of Masters, Processing Transactions, Excise Reports.

22: Payroll Accounting and Compliance

Configuring Payroll in Tally, Creating Payroll Masters, Processing Payroll in Tally, Accounting for Employer PF Contributions, Accounting for Employer ESI Contributions, Payment of Professional Tax, Generating Payroll Reports.

REFERENCE BOOKS:

S.No	Title of the Book	Author	Publisher
1.	Comprehensive Computer Learning- Tally ERP 9	SHRADDHA SINGH NAVNEET MEHRA	V & S Publishers Value & Substance
2.	Tally Work Book – A real practical accounting	RAKESH SANGWAN	Ascent Prime Publication
3.	Simple Tally – version 6.3	A.K. NADHANI, K.K. NADHANI	BPB Publications
4.	Advanced Accounting with Tally ERP 9	Dr. ABHISHEK SHRIVASTAVA	-


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Department of Biotechnology

Value - Added Course -Mushroom Cultivation

Brochure-2017-18

Course Code: BTVACO1

Duration: 30 Hrs.

Offered to: Students of the Mahendra Arts and Science College

COURSE OBJECTIVES

- To empower self-employment.
- To know the nutrient value of mushroom.
- To learn the morphology and types of Mushrooms.
- To know about the identification of edible and poisonous Mushrooms.
- To study the prospects and scope of mushroom cultivation in small scale industry.

COURSE OUTCOMES

- To use extensively in cooking in many cuisines in the culinary industry, processed foods and households
- To become a Food and Fermentation Expert and consultant in the Agricultural sector
- To get a job from quality control laboratories in the bio and agriculture based industries
- To gaining popularity in the pharmaceutical industry.
- To earn great potential with cultivation of variety of mushroom to another.
- To Start-up Entrepreneurs in Agribusinesses sector

For Details Contact:

Dr.T.Selvankumar,
Professor and Head,
Department of Biotechnology,
Mobile: 94434 70394.


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BACHELOR OF SCIENCE

SYLLABUS FOR - VALUE ADDED PROGRAM

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MUSHROOM CULTIVATION

Objectives

To understand the morphology, types and nutrient value of mushroom.

To impart knowledge about the identification of edible and poisonous mushrooms.

To learn about the Diseases of Mushrooms and Post harvesting techniques.

To study the prospects and scope of mushroom cultivation in small scale industry and also facilitate the self-employment.

UNIT - I

Introduction to Mushroom Cultivation - Importance of Mushroom, scope, past, present status & future prospects. Knowledge of General Safety, health and hygiene. Mushroom morphology. Mushroom edible types, Poisonous mushrooms.

UNIT - II

Cultivation - Different substrates - Spawn preparation - Composting. Different methods of cultivation - bed method, polythene bag method, field cultivation. Cultivation of Paddy Straw Mushroom and ingredients used for Oyster Mushroom, Milky Mushroom and Button Mushroom cultivation.

UNIT - III

Farm layout - Principles of mushroom farm layout- location of building plot, design of farm, bulk chamber, composting platform, equipments & facilities, pasteurization room & growing rooms.

UNIT - IV

Mushroom for health: ingredients in mushroom, i.e. Protein, Carbohydrate, Fiber, Fat, Vitamins, Minerals etc. Maintenance of mushroom - pest control. Cropping & crop management - picking & packing. Problems in mushroom cultivation & its remedies.

UNIT - V

Post-harvest handling and value addition of mushrooms. Preservation of Mushroom. Economics of Mushroom cultivation.


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PRACTICAL: MUSHROOM CULTIVATION

1. Selection and Processing of straw for bed preparation
2. Sterilization process practice
3. Growing and Identification of viable Spawn
4. Preparation of beds for cultivation of various mushrooms and its maintenance
5. Post Harvesting care and processing Visit to Mushroom farms

Field Study: Visit to mushroom cultivating areas.

REFERENCE

1. Mushroom Cultivation, Tripathi, D.P. (2005) Oxford & IBH Publishing Co. PVT.LTD, New Delhi
2. Mushroom Production and Processing Technology, Pathak Yadav Gour (2010) Published by Agrobios (India).
3. Handbook on Mushrooms, Nita Bahl, oxford & IBH Publishing Co.


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Kalippatti (Po) - 637 501, Namakkal (Dt), Tamil Nadu.

Department of Physics

Value Added Course

on

"Troubleshooting Electrical Appliances"

With effect from January 09th 2017 Onwards

COURSE TOPICS

1. Electrical Appliances
2. Kitchen Appliances
3. Electronic Instruments
4. Office Electronics
5. Measuring Instruments

For more details
Contact

Dr. K. Prabakaran / AP Physics
Mobile: 7010574377


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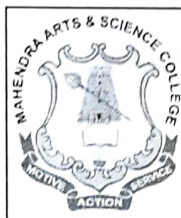
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VALUE ADDED COURSE

SYLLABUS FOR

ALL UNDERGRADUATE & POST GRADUATE STUDENTS

**FOR THE STUDENTS ADMITTED FROM THE
ACADEMIC YEAR 2017 – 2018 ONWARDS**

PRINCIPAL

MAHENDRA ARTS & SCIENCE COLLEGE

(Autonomous)

Kalippatti (PO) - 637 501, Namakkal (DT)

MAHENDRA ARTS & SCIENCE COLLEGE
(Autonomous)
(Affiliated to Periyar University)
Department of PHYSICS

PREAMBLE

The Department of Physics offers programs in conventional Physics to a broad range of students through creative and learning and teaching methodology which enables them to integrate this knowledge into their normal thought processes. Also, The department provides a forward-looking curriculum to undergraduate Physics majors, involving not only conventional Physics topics but also state-of-the-art instruction through Theory and Practical experimental techniques. On the other hand, the department offers Value added courses for data acquisition and analysis, as well as active involvement in professional growth and research.

COURSE OBJECTIVES:

- Technical Proficiency: Obtaining successful employment to their respective interests, education and to become socially responsible physicist
- Professional growth: Developing life long learning, higher education and research in their respective areas of specialization
- Management growth: Improving leadership quality through innovative manner

COURSE OUTCOMES:

- **Knowledge:** has substantial knowledge in electrical instruments and their trouble shooting process along with mobile phone servicing.
- **Skill:** can combine and use knowledge from several disciplines and independently assess and evaluate research methods and results
- **General competence:** has the ability to successfully carry out advanced tasks and projects, both independently and in collaboration with others, and also across disciplines



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TROUBLE SHOOTING ELECTRICAL APPLIANCES

UNIT-I: ELECTRICAL APPLIANCES

Electric Iron box- Vacuum Cleaner - Washing Machine- Lightening- Fans- UPS- Voltage Stabilizer- Water Heater.

UNIT- II: KICHEN APPLIANCES

Water purifier- Microwave Oven- Mixer- Juicer- Wet Grinder- Electric Cooker- Air Cooler- Food Processor- Refrigerator.

UNIT- III: ELECTRONIC INSTRUMENTS

Mobiles- Tablet- Laptop- Television- Audio- Video- Digital Cameras.

UNIT- IV: OFFICE ELECTRONICS

Paper Shredder- Label Printer- Printing Calculator- Basic Calculator- Landline Phone

UNIT-V: MEASURING INSTRUMENTS

Capacitor- Resistor- Inductor- Types of lamps- Electrical Bulbs- Measuring Meter- Galvanometer- Ammeter- Voltmeter and multimeter- Transformer- Applications.

BOOKS FOR REFERENCES:

1. A text book in electrical technology, B.L.TERAJA and A.K.TERAJA, S.CHAND & CO, NEW DELHI
2. A text book in electric power, P.L.SONI, T.V. KUPTA, V.S. BHATNAGAR



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MOBILE PHONE SERVICING

UNIT-I: ENERGY SOURCES

Introduction – Energy Sources- Availability- Renewable Energy sources- New energy Techniques.

UNIT-II: SOLAR ENERGY

Solar constants- solar radiation- Beam and Diffuse- Air Mass- Scattering- Zenith Angle- Day length- Local solar time- Solar Cells.

UNIT-III: WIND ENERGY, BIO MASS

Introduction- Basic principle- Nature- power- Wind energy- Wind data- Types of wind machines- Energy storage- Bio mass conversion Techniques- Generation- Method- Applications.

UNIT-IV: MOBILE COMMUNICATION

Mobile and wireless services- A short history of wireless communication- Overview- Signal- Antenna Signal propagation.

UNIT-V: SIGNALS

Path loss of Radio signals- Additional Signal Propagation Effects- Multi Path Propagation- Time division multiplexing.

BOOKS FOR REFERENCES

1. G.D.RAI, Non Conventional energy sources, Khauna publications, Delhi
2. S.P.SUKHATME, Solar Energy, TMH
3. M.P.AGARWAL, Solar Energy, S.Chand & Co


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Recognized u/s 2(f) & 12(B) of the UGC Act 1956

DEPARTMENT OF ENGLISH

VALUE - ADDED COURSE

COMMUNICATIVE SKILLS

COURSE FEATURES:

- DEVELOPS VERBAL & NON-VERBAL COMMUNICATION
- HELPS IN EMPLOYABILITY
- FACILITATE THE ABILITY TO COMMUNICATE

COMMENCES
FROM
DEC 2017

FOR FURTHER ENQUIRIES:
MRS.P. SUJATHA,
ASSISTANT PROFESSOR,
DEPARTMENT OF ENGLISH


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Kalippatti – 637 501, Namakkal (Dt), Tamil Nadu.

SYLLABUS 2017-18

COMMUNICATIVE SKILLS

Objectives:

1. To train and prepare the students to seek and find employment in the corporate, media, English language teaching and content writing sectors
2. To develop communicative competence in students
3. To impart knowledge, ideas and concepts in the technicalities of proper pronunciation, structure, appropriate use and style of the English Language as well as the application areas of English communication
4. To expose the students to the employment opportunities, challenges and job roles.

Unit-1

Communication: An Introduction - Definition-Nature and Scope
of Communication -Importance and Purpose of Communication –
Process of Communication - Types of Communication

Unit-2

Non-Verbal Communication - Personal Appearance - Gestures - Postures - Facial Expression -
Eye Contacts- Body Language (Kinesics) - Tips for Improving Non-Verbal Communication

Unit-3

Effective Communication - Essentials of Effective Communication -Communication Techniques
- Barriers to Communication

Unit-4

Effective Writing Skills- Main Forms of Written Communication -Paragraph Writing (Linkage
and Cohesion) - Letter Writing (formal and informal) - Essay writing -Notices

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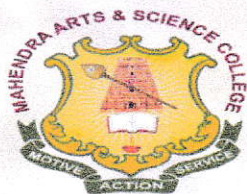
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Unit-5

Business Communication - Preparing Agenda and Minutes for Meetings - Writing Notices and Memos - Drafting an E-mail, Press Release - Correspondence with Govt./Authorities, Office Orders, Enquiries and Replies)

References:

1. A Practical English Grammar – A.J. Thomson, A.V. Martinet – Oxford University Press
2. A Handbook of English Grammar and Usage – D. Thakur – BharatiBhawan Publication
3. Function in English- Jon Blundell et al.



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Kalippatti (Po) - 637501, Namakkal (Dt), Tamil Nadu.



Department of Biotechnology

Value - Added Course Bio-fertilizer Production

Brochure-2017-18

Course Code: BTVACO2

Duration: 30 Hrs.

Offered to: Students of the Mahendra Arts and Science College

COURSE OBJECTIVES

- To promote organic farming in the region through technical capacity building of all stakeholders.
- To facilitate the students to understand basics of bio-fertilizers.
- To provide exposure to bio-fertilizer production technology.
- To make students ready for industry as entrepreneurs.
- To improve the professional competencies and upgrade the knowledge and develop technical skills of bio-fertilizer production.

COURSE OUTCOMES

- To obtain sustainable growth in the agriculture sector.
- To become a research analyst, fermentation expert and consultant in the life sciences sector.
- To get a job from quality control laboratories in the bio and agriculture based industries.
- To Start-up entrepreneurs.

For Details Contact:

Dr.T.Selvankumar,
Professor and Head,
Department of Biotechnology,
Mobile: 94434 70394.

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KALIPPATTI-637501



BACHELOR OF SCIENCE

SYLLABUS FOR VALUE ADDED PROGRAM


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**FOR THE STUDENTS ADMITTED FROM
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BIO-FERTILIZER PRODUCTION

Objectives:

To understand the scope, importance and types of bio-fertilizers

To impart the hands on training on the skills associated with bio-fertilizer producing organism's isolation, production and their application.

To learn low cost media preparation and ecofriendly agricultural inputs in bio-fertilizer production.

UNIT - I

Bio-fertilizers: Introduction, history, concept, scope and importance of Bio fertilizers, Classification of Bio fertilizers.

UNIT – II

Structure and characteristic features of bacterial Bio fertilizers- Azospirillum, Azotobacter, Bacillus, Pseudomonas, Rhizobium and Frankia; Cynobacterial bio-fertilizers- Anabaena, Nostoc, Hapalosiphon and fungal bio fertilizers- AM mycorrhiza and ectomycorhiza.

UNIT – III

Production technology: Strain selection, sterilization, growth and fermentation, equipment, mass production of carrier based and liquid bio-fertilizers. FCO specifications and quality control of bio fertilizers.

UNIT – IV

Application technology for seeds, seedlings, tubers, sets etc. Bio-fertilizers – Packaging, Storage, shelf life, quality control and marketing. Factors influencing the efficacy of bio fertilizers.

UNIT – V

Quality standard and control methods of bio-fertilizers. Strategies of mass multiplication, packing, marketing and registration of bio-fertilizers.


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PRACTICAL: BIO-FERTILIZER PRODUCTION

1. Laboratory Equipment's-. Autoclave, BOD incubator, Laminar air flow, Colony counter, Hot air oven, Spectrophotometer and Bioreactor.
2. Isolation of *Rhizobium* from root nodules.
3. Isolation of *Pseudomonas fluorescens*.
4. Isolation of *Azospirillum* from plant roots.
Mass production of bio-fertilizers-Rhizobium.
5. Methods of evaluation of bio-fertilizers.

Reference Books:

1. Motsora, M.R., P. Bhattacharya and Beena Srivastava.1995. Bio-fertilizer Technology, Marketing and Usage-A Source Bookcum-Glossary (FDCO, New Delhi).
2. Subbarao, N.S. 1993. Biofertilizers in Agriculture and Forestry (Oxford and IBH Pub. Co., New Delhi).
3. NIIR Board. 2012. The Complete Technology Book on Bio-fertilizer and Organic Farming (2nd Revised Edition). NIIR Project Consultancy Services.
4. Mahendra Rai. 2008. Handbook of Microbial Biofertilizers. Routledge Taylor and Francis group.
5. Eiri, B. 2009. Hand Book of Biofertilizers & Vermiculture. Engineers India Research Institute. New Delhi.
6. Kannaiyan, S. K. Kumar and K. Govindarajan. 2010. Biofertilizers Technology. Scientific Publishers, New Delhi.
7. Ajar Nath Yadav, 2021. A Laboratory Manual for Production Technology for Bioagents and Biofertilizers.


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