

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA - 8
(Affiliated to Krishna University, Machilipatnam)
SYLLABUS

**Course Title: English for Competitive
Examinations**

**Course Code: 20CEREC1
Credits: 1**

No. of Hours: 30

Objectives

- To improve English Grammar and Language Skills.
- To improve their comprehending abilities and writing skills.

Course Outcomes

CO1: Develop their Grammar and Language Skills.

CO2: Build up comprehending abilities.

CO3: Use grammatically correct English.

UNIT - I: **(10 Hrs.)**

Comprehension, spotting errors, Antonyms, Synonyms, One word substitutes

UNIT - II: **(10 Hrs.)**

Prepositions, Phrasal verbs, Idioms, Paragraph writing, Rewrite as directed

UNIT - III: **(10 Hrs.)**

Voice, Sentence order, solving previous model papers

Reference Books

1. S.P Bakshi, Objective General English, Revised Edition, India, Arihant Publication Ltd, 2018
2. R. S. Aggarwal, Objective English for General Competitive Examination, Seventh Edition, Delhi, S Chand Publications, 31 July 2020.
3. Hari Mohan Prasad, Objective English, Sixth Edition, India, Mc Graw Hill Education Publications, 30 September 2017.

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA -8
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SYLLABUS

Course Title: English for Empowerment
No. of Hours: 30

Course Code: 20CEREE1
Credits: 1

Objectives

- To improve the standard of English.
- To build confidence and improve communication skills.

Course Outcomes

CO1: Speak English fluently.

CO2: Use grammatically correct English.

CO3: Relate vocabulary and grammar.

UNIT - I: **(10 Hrs.)**

Sounds of English (Listen and Repeat), Introducing oneself, Greetings, Describing a person, Describing a thing

UNIT - II: **(10 Hrs.)**

Speaking about daily routine, conversation with a stranger, making enquiries, making requests, asking and giving directions

UNIT - III: **(10 Hrs.)**

Offering, accepting and declining help, seeking, giving and refusing permissions, thanks and gratitude, apologizing

Reference Books

1. Binod Dey, Spoken English Mastery, First Edition, Notion Press, Delhi, 2018
2. Michael Mc Carthy Fellicity O' Dell, English Collocation in Use, Second Edition, Delhi, Cambridge Press, 2014
3. V. Sasi Kumar, P. Kiranmai Dutt, Rajeevan, A Course in Listening and Speaking – I, Cambridge University Press, 2006

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA - 8
(Affiliated to Krishna University, Machilipatnam)
SYLLABUS

Course Title: Telugu DTP
No. of Hours: 30

Course Code: 20CERTD1
Credits: 1

Objectives

- To provide the participants understanding of the techniques essential to build their career in desktop publishing using suitable hard ware and software tools.
- To offer arrange of topics of immediate relevance for DTP Industry.

Course Outcomes

CO1: Create documents and templates.

CO2: Add text into documents using various methods.

CO3: Apply different formatting styles to characters and paragraphs.

UNIT-I: (10 Hrs.)

INTRODUCTION

How to on and off the computer, how to have an information in word. Which keyboard is used to type Telugu word, what kind of fonts it contains, how they are used?

EXERCISE-1

How to Introduce Telugu Alphabet through keyword. What would be there in the middle line and how to type them?

EXERCISE-2

Introducing fist line, typing it, joining first line, second line and typing together.

EXERCISE-3

Introducing third line and typing it again first line, second and third lines typing together.

UNIT-II: (10 Hrs.)

EXERCISE-4

To teach them word stress.

EXERCISE -5

To teach all the letters of Telugu script.

EXERCISE - 6

To type Telugu sentences, mark quotations, underlining, colouring, highlighting, ect....

EXERCISE - 7

To type poems, type comas, to inout photos and type the write ups below the photo.

UNIT-III:**(10 hrs.)****EXERCISE-8**

To type fast.

EXERCISE-9

To type fast.

EXERCISE -10

Page maker.

EXERCISE-11

Test.

References

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MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

Course Title: Spoken French

Course Code: 20CERFN1

No. of Hours: 30

Credits: 1

Objectives

- To facilitate learning of an international language in order to enhance global communication skills
- To grasp new language skills thereby enhance employability

Course Outcomes

CO1: Understand the culture and language of France which are inter linked.

CO2: Enable students to practice conversation in French.

CO3: Manifest writing, reading, spoken skills in French.

UNIT-I: Au jour le jour

(8 Hrs.)

1. Obj. Communicatifs:

a.

- Saluer, prendre conge'
- Se presenter, presenter quelqu'un
- Demander et donner l'identite' de quelqu'un
- Affirmer, nier

b.

- Aborder quelqu'un
- Acheter un billet de train
- Situer, se situer dans l'espace
- Telephone

c.

- situer dans le temps (l'heure)
- fixer un rendez-vous
- raconter sa journee

2. Structures grammaticales:

a.

- les articles defines(le,la,les)
- les pronoms sujets
- l'indicatif present d'etre et des verbes reguliers en 'er'
- la negation avec ne....pas

b.

- le present des verbes avoir, aller, partir, venir, prendre
- l'adjectif indefinis, l'article defines

- l'adjectif interrogative 'quel'
- le genre, et le nombre du nom et de l'adjectif
- l'interrogation: est-ce que?, qu'est-ce que? Qu'est-ce que? Qui'est-ce?c'est qui? Ou'? d'où'?"?
- des prepositions et des adverbs de lieu(1)

c.

- le pronom on
- l'expression de la quantite' avec l'article partitif(1)
- l'adjectif possessif
- les verbes reguliers en -ir, -issons
- le verbe faire
- les verbes pronominaux
- les verbes en -ever

Lexique:

a.

- les nombres de 0 a' 69
- les nationalite's
- les professions

b.

- les nombres de 70 a' l'infini
- les transports en commun

c.

- l'heure
- aujourd'hui ou d'habitude (des expressions de temps);

l'alimentation(1)

Phonetique:

a.

- affirmation ou question?
- Les groupes de soufflé

b.

- L'opposition entre sons clairs et sons demolise's
- Les nombres

c.

- les accents et les groupes de soufflé
- l'opposition entre sons demolise's et sons graves.

E'crit:

a.

- faire sa carte de visite
- ecrire un message

b.

- lire et ecrire une carte postale

- rédiger un message électronique
- c.
- lire et décrire une BD (1)
- donner son emploi du temps

Interculturel:

- a.
- pour se saluer et prendre congé (bises/gestes/ou poignée de main?)
- la France, un pays de contrastes (le patrimoine français)
- b.
- communiquer, pas si facile! (le téléphone)
- France, Europe, régions (Paris-Provence: les réseaux de transport)
- c.
- Être à l'heure (la ponctualité)
- Les bons moments de la journée (l'heure des pauses conviviales, l'heure des sorties et des courses)

UNIT-II: Temps libre

(8 Hrs.)

Obj. communicatifs:

- a. inviter quelqu'un, accepter, refuser une invitation; situer dans le temps (la date, les saisons); situer dans l'espace (sur une carte); parler de la famille; décrire son logement
- b. Raconter un événement (au passé); exprimer la durée; réserver une chambre d'hôtel, une location; faire le portrait (physique et moral) d'une personne; donner son opinion (je trouve/je pense/je crois que.....)
- c. Faire un achat; choisir et payer quelque chose; essayer un vêtement, dire s'il va ou non; parler du temps qu'il fait; comprendre un bulletin météo.

Structures grammaticales:

- a. Le passé composé avec avoir et être; les verbes savoir, vouloir et pouvoir; le futur proche; les pronoms toniques
- b. Les pronoms personnels COD; imparfait; les verbes en -cer ou -ger et les verbes en -yer; imparfait et passé composé; comment retrouver et apprendre la conjugaison d'un verbe; le verbe croire; des indicateurs temporels: depuis, pendant, à partir de, jusqu'à.....
- c. L'adjectif et le pronom démonstratifs; l'interrogation avec lequel; le futur; les verbes mettre, voir et devoir; les pronoms personnels COI; la comparaison

Lexique:

- a. la famille; le calendrier; le logement
- b. le corps; la caractéristique

- c. les couleurs; les vêtements; la météo

Phonétique:

- a. l'interrogation avec ou sans mot interrogative; l'opposition entre sons bémolisés et sons aigus.(e), (i)
b. L'opposition entre sons bémolisés (y) et sons graves (u), (w)
c. Les sons (f), (z), (s),

E'crit:

- a. Répondre à une invitation; écrire une lettre à un(e) ami(e) (1);
écrire une lettre à un (e) ami (e)
b. Lire et décrire une BD (2): raconter une histoire (en utilisant le
passé composé et l'imparfait); lire et rédiger une petite annonce
c. Lire et remplir un bon de commande; écrire une lettre à un (e) ami (e)
(2)

Intercultural

- a. Inviter, fêter, souhaiter; vive la fête
b. Gestes et attitudes; en vacances
c. L'argent ne fait pas le Bonheur, mais.... (les moyens de paiement, le
pourboire); les Français et la mode

UNIT-III: Tous ensemble

(9 Hrs.)

Objectif communicatifs:

- a. Demander son chemin à quelqu'un; indiquer le chemin à quelqu'un;
donner un ordre, un conseil;interdire, déconseiller
b. Réserver une table au restaurant, des places à un spectacle;
commander quelque chose (au restaurant); demander l'addition;
exprimer ce qu'on souhaiterait faire, proposer de faire quelque chose
;comprendre ,proposer une recette de cuisine;donner son avis
c. Suggester de faire quelque chose, proposer quelque chose; dire qu'on
est d'accord, pas d'accord; donner des arguments ; porter un jugement
sur quelqu'un ou quelque chose; ;définir, donner des précisions

Skill/ Hands –on:

(30

Hrs.)

1. Objectifs communicatifs:

- Saluer
- Demander à quelqu'un comment s'appeler
- Dire comment on s'appelle
- Faire comprendre à quelqu'un qu'on n'a pas compris
- Épeler

2. Structures grammaticales:

- Le présent du verbe s'appeler
- Mise en place du Carnet de route

3. Lexique:

- Les mots de la classe
- 4. **Phonétique:**
 - Les sons du français
- 5. **E'crit:**
 - L'alphabet
- 6. **Interculturel:**
 - Tu ou vous?
 - Et pour vous, c'est quoi la France?
 - (les representations de la France en photos)

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA
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SYLLABUS

Course Title: Earn While You Learn
No. of Hours: 30 Hrs.

Course Code: 20CEREL1
Credits: 1

Objectives

- To provide opportunities for students to earn while learning to meet their expenses
- To promote self-employment, to build their business skills, knowledge, and attitudes.

Course Outcomes

CO:1 Gain first-hand experience while they are still pursuing their degree

CO:2 Earn while they are learning and financially support their studies

CO:3 Exposes the students to the world of work before actual employment

UNIT: 1

Introduction about silk thread jewellery- How to get the material- Explanation – Preparation of bangles – Preparations of hangings – Preparation of ear rings, necklaces and chains.

UNIT: 2

Woolen flower preparation – Woolen hangings – Door torans with wool.

UNIT: 3

Preparation of Paper flowers – various hand embroidery stitches - designs

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA

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SYLLABUS

Course Title: Making Jute Products

Course Code: 20CERMJ1

No. of Hours: 30 Hrs.

Credits: 1

Objectives:

- To create more awareness for jute products on the merit of environment related issues
- To create self employment, development of new and innovative jute products.

Course Outcomes:

CO1: Understand different designs of Jute Bags

CO2: Identify business opportunities in chosen sector.

CO3: Start a small business enterprise.

UNIT: 1

Introduction about Jute handicrafts and yarns – brief introduction to various markets of jute products

UNIT: 2

Concept of identification of different raw jute yarns – concept of different types of braiding and Knots.

UNIT: 3

Brief introduction on different designs of jute products- making of jute bag - jute pouch – ideas of various government schemes for self-employment available for jute products.

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA

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SYLLABUS

Course Title: Wealth Out of Waste

Course Code: 20CERWW1

No. of Hours: 30Hrs.

Credits: 1

Objectives

- To Create awareness among students to use the waste products in best possible manes.
- To make aware of uses of waste material and reduce waste generation.
- To bring out the innovative and creative skills

Course Outcomes

CO1: Understand the various facets of Waste Management

CO2: Recognise the market opportunity for reused, recycled, upcycled products

CO3: Skill to recycle and reuse of waste materials

UNIT: 1

How to create Wealth – Things needed – Tools for drawing shapes – Brushes and their uses.

UNIT: 2

Preparation of Door mats – flower vases – paper baskets – Articles made of match box, soap cases, water bottles

UNIT: 3

Woolen decorative items – woolen clothes – Napkins – jeans cloth pouches - bags – wall hangings

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA - 8

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SYLLABUS

Course Title: Bajaj Finserv CPBFI

Course Code: 20CERBF2

No. of Hours: 96

Credits: 2

Objectives

The objective of the programme is to enhance employability of the graduates for BFSI sector.

Course Outcomes:

CO1: Students normally report improvement in confidence, communication skills and industry knowledge. So the outcome is enhanced employability.

Managing self – Swaroop

Understanding and regulation of how one thinks, feels and behaves, self-confidence, emotional regulation, decision-making, stress management
Communication and Workplace Skills All types of communication, feedback techniques, persuasion, working in teams, group discussion and interview skills

Overview of Retail Banking

Overview of the banking and NBFC industry and details about banking products
Overview of Insurance

Over view of life and general insurance industry and details about products

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA - 8

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SYLLABUS

Course Title: Home Crafts

No. of Hours: 30

Course Code: 20CERHC1

Credits: 1

Objectives:

- To develop professional knowledge and skill in laundry and organic products.
- To understand the chemical compounds absorbed and its utility.

Course Outcomes:

CO1: Design and prepare products based on requirement of the market.

CO2: Identify the material required, its application and usage.

CO3: Develop marketing skills.

UNIT-I: (5 Hrs.)

Introduction of Home Crafts – Marketing - Phenol and its types; Soap Oil and its types.

UNIT-II: (5 Hrs.)

Washing Powder – Preparation and types.

UNIT-III: (5 Hrs.)

Vaseline – Preparation and types; Pain balm – Preparation and types.

Skill/Hands – on: (15 Hrs.)

1. Chemical measuring
2. Safe laboratory practices
3. Ethical conduct of laboratory practices

References

Manual

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA - 8

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SYLLABUS

Course Title: Counseling & Psychotherapy

Course Code: 20CERCP1

No. of Hours: 30

Credits: 1

Objectives

- To explore one's own beliefs and values in Counseling and psychotherapy.
- To develop and deepen the understanding of counseling, psychotherapy process.

Course Outcomes

CO1: Understand the concept of counseling and psychotherapy

CO2: Develop skills in counseling

CO3: Able to identify the various areas in which counseling and psychotherapy skills can be applied

Unit-I: Psychology of personal growth and well-being (5 Hrs.)

Perspectives on self and personal growth: Concept of adjustment; healthy personalities, Characteristics and determinants.

Unit-II: Foundations of Counseling (5 Hrs.)

Basics of counseling, Role of counselor, Positive psychology oriented counseling and areas of counseling

Unit-III: Various theories of counseling and psychotherapy (5 Hrs.)

(Psychodynamic, cognitive-behavioral, humanistic, and family counseling approaches) Exploration of techniques and methods in group and individual counseling. Coping methods: strategies and effectiveness

SKILL DEVELOPMENT (15 Hrs.)

1. Communication skills
2. Listening skills
3. Writing - Case study
4. Counseling skills

Reference Books:

1. What is Counselling and Psychotherapy, Author – Norman Claringbull, Year -2010, and Publisher – Learning matters Ltd
2. Theories of counselling and Psychotherapy Systems and Strategies, Author – Seligman Linda, Publisher – Pearson Education, Edition-4.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

**Course Title: Sets, Relations &
Functions (Online)**

**Course Code: 20CERSF1
Credits: 1**

Duration: 8 Weeks

Objectives:

- To provide a strong foundation in Set theory, Relations and Functions
- To familiarize with the significance of Set theory and Functions
- To enable the learners understand the topics based on Set theory and Functions

Course Outcomes:

CO1: Identify the scope and significance of Set theory and Functions

CO2: Infer the concepts and courses based on Sets and Functions

CO3: Understand the topics based on Set theory and Functions

SECTION-A: SETS

Week-1: Unit I

Introduction: Definition, Finite & Infinite sets, Sets of numbers, Examples;

Representation of sets: Roster form, Set-builder form, Examples; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-2: Unit II

Types of sets: Subset, Equality of sets, Universal set, Compliment of a set, Empty set, Singleton, Power set, Examples.

Intervals: Set of Real numbers, Subsets of Real numbers: Intervals, Types of intervals, Infinite intervals, Length of interval, Examples.

Weekend Assignment (a Quiz in MCQs for 10 points).

Week-3: Unit III

Algebra of sets: Intersection, Union, Difference, Compliment, Symmetric difference, Examples, Important laws, Problems

Venn diagrams: Introduction, Venn diagrams, Some results on Venn diagrams, Applications and Problems.

Weekend Assignment (a Quiz in MCQs for 10 points).

SECTION-B: RELATIONS

Week-4: Unit IV

Cartesian product: Ordered pair, Cartesian product of sets, Properties, Examples; **Introduction to Relations:** Relation definition, Domain, Range, Number of relations, Inverse of a relation, Examples and Problems.

Weekend Assignment (a Quiz in MCQs for 10 points).

Week-5: Unit V

Types & Properties: Types of Relations: Identity, Universal, Void, Properties of relations: Reflexive, Symmetric, Anti-symmetric and Transitive relations, Equivalence relations, Partial order relation, Properties, Examples.

Equivalence Classes: Composition of relations, Congruence relations, Equivalence classes, Partitions, Examples.

Weekend Assignment (a Quiz in MCQs for 10 points).

SECTION-C: FUNCTIONS

Week-6: Unit VI

Introduction: Function definition, Domain, Codomain, Range, and Function as a set of ordered pairs, Examples.

Types of functions: Many to one function, Injection, Surjection and Bijection, Examples.

Weekend Assignment (a Quiz in MCQs for 10 points).

Week-7: Unit VII

Composition of functions: Equality of functions, Composition of functions, Properties and Problems.

Inverse: Inverse image of an element and of a subset, Identity function, Inverse of a function, Examples, Restriction of a function, Equipotent sets.

Weekend Assignment (a Quiz in MCQs for 10 points).

Week-8: Unit VIII

Some particular functions: Operator, Constant, Even & Odd, Step, Modulus, Polynomial (Linear, Quadratic, Cubic), Exponential, Logarithmic, Rational, Irrational, Reciprocal, Implicit & Explicit, Parametric and Power functions, Examples.

Algebra of functions: Real function, Number of functions, Sum, Difference, Product and Quotient of functions, Absolute value function, Monotonic functions, Examples and Problems.

Weekend Assignment (a Quiz in MCQs for 10 points).

Final Online Examination (a Quiz in MCQs for 20 points).

Reference Text Books:

1. Any text book on Sets, Relations and Functions.
2. Any text book on Discrete Mathematics, Abstract Algebra, Modern Applicable Algebra.
3. Any text book on Business Mathematics.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

Course Title: Arithmetic (Online)

Course Code: 20CERAM1

Duration: 8 Weeks

Credits: 1

Objectives:

- To provide problem-solving techniques
- To improve analytical skills in solving problems
- To develop confidence to take competitive examinations

Course Outcomes:

CO1: Utilize problem-solving skills and techniques

CO2: Apply analytical skills to solve problems

CO3: Develop confidence in taking competitive examinations

Week-1: Unit I

(1) Types of Numbers (2) Divisibility (3) Tests of Divisibility; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-2: Unit II

(4) Fractions (5) G.C.D. of Numbers (6) L.C.M. of Numbers; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-3: Unit III

(7) Simplification (8) Square & Cube roots (9) Indices; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-4: Unit IV

(10) Linear & Quadratic equations (11) Problems on Numbers (12) Problems on Ages; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-5: Unit V

(13) Average (14) Percentage (15) Simple & Compound Interest; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-6: Unit VI

(16) Profit & Loss (17) Ratio & Proportion (18) Partnership; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-7: Unit VII

(19) Variation (20) Time & Work (21) Time & Distance; Weekend Assignment (a Quiz in MCQs for 10 points).

Week-8: Unit VIII

(22) Sequences & Series (23) Arithmetic Progression (24) Geometric & Harmonic Progressions; Weekend Assignment (a Quiz in MCQs for 10 points).

Final online Examination, a Quiz in MCQs for 20 points.

Reference Books:

1. Quantitative Aptitude for Competitive Examinations, R. S. Aggarwal, S. Chand publications.
2. Arithmetic for Competitive Examinations, R. S. Aggarwal, S. Chand publications.
3. Quantitative Aptitude, Dr. P. C. Tulsı & Bharat Jhunjhunwala, S. Chand publications.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8
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SYLLABUS

Course Title: Vocal Music

Course Code: 20CERVM1

No. of Hours: 30

Credits: 1

Objectives

- To develop the knowledge on 'Raaga' and 'Taala'
- To control pulse and rhythm and develop an awareness of 'Sruthi'

Course Outcomes

CO1: Distinguishes the varied types of sounds, both musical and nonmusical.

CO2: Reproduces the sound through vocal music and control pulse and rhythm.

CO3: Recognize 'Raaga' and 'Taala'.

UNIT-I: Saraleeswaraalu

(12 Hrs.)

1. 10 Saraleeswaraalu with sruthi, raagam and taalam
2. The theoretical and historical aspects of saraleeswaraalu

UNIT-II: Keerthanalu

(9 Hrs.)

1. Three Keerthanas belonging to 3 different authors with sruthi, raagam and taalam
2. The theoretical and historical aspects of keerthanalu being taught

UNIT-III: Desabhakthi Geethalu

(9 Hrs.)

Any 3 patriotic songs with sruthi, raagam and taalam

Reference:

Manual

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

Course Title: Mat Lab

No. of Hours: 30

Course Code: 20CERML1

Credits: 1

Objectives

- To understand the MATLAB environment.
- Able to do simple calculations using MATLAB.
- Able to carry out simple numerical computations and analysis using MATLAB.
- To impart skill in use of this software for real time applications.

Course Outcomes

CO1: Understand the main features of the MATLAB development environment and use the MATLAB Graphical User Interface effectively.

CO2: Design simple algorithms to solve problems.

CO3: Write simple programs in MATLAB to solve scientific and mathematical problems using the skills acquired.

UNIT – I: Basics of MATLAB

(6 Hrs.)

1. Starting With MATLAB

- Working in command Window
- Arithmetic Operations
- Display format
- Elementary math built- in functions
- Defining Variables
- Useful commands

2. Script File

- About Script file
- Creating and Saving Script file
- Input to a Script file, output commands
- variables- Local, Global, Predefined

3. Function files

- Creating Function file
- Structure of function file
- Inline functions
- The feval command
- Script Vs Function file
- More important commands

4. Two Dimensional plot

- The plot Command
- The plot Command
- Plotting Multiple Graphs in the same Plot
- Formatting a Plot
- Plots with Logarithmic Axes
- Plots with special types
- Histograms
- Polar Chart
- Plotting Multiple plots on the same page

5. Three Dimensional Plot

- Line Plots
- Mesh and Surface Plots
- Plots with Special graphs
- The View Command

6. Graphics and visualization

- Elementary plotting functions
- Graphics Annotations
- Subplots

UNIT- II: Graphical User Interface

(6Hrs.)

- What is Guide?
- Guide preferences and options
- Laying out a Guide GUI
- Creating GUI with Guide
- Saving and running a Guide GUI
- Programming a Guide GUI
- Managing and Sharing Application Data in GUI
- Managing and Sharing Application Data in GUI

UNIT – III: Signal Processing

(6 Hrs.)

1. Signal Generation

- Common Signals
- Unit Impulse
- Unit Step
- Unit Ramp

2. Common Periodic Waveform

- Common Aperiodic Waveform
- Sinc function
- Sampling
- Filter Responses

3. Basic communication

- Amplitude modulation program
- Frequency Modulation Program
- Phase Modulation Program
- Pulse Amplitude Modulation
- Pulse Width Modulation
- Pulse Position Modulation
- Transmitter design
- Receiver design

UNIT – IV: Image Processing

(6 Hrs.) 1.

Working with Images

- Exploring image types
- Supported MATLAB data types for representing images
- Binary image
- Grayscale images
- Indexed image
- RGB image
- Importing and exporting images in MATLAB
- Viewing the image
- Multiple image frames
- Finding image pixel values
- Calculating image statistics
- Converting image formats

2. Image Enhancement Techniques

- Adjusting image intensity
- Histogram stretching
- Histogram equalization
- Histogram adjustment
- Using arithmetic functions to enhance images
- Addition - increase brightness
- Multiplication n - increase sharpness
- Subtraction - detect change
- Division - detect change
- Correcting image alignment: rotating
- Cropping and resizing images
- Exploring the basics of image registration

3. Filtering Images

- Defining filtering
- Filtering process
- Performing filtering

- Filtering applications: smoothing, edge detection, and sharpening
- Modeling and removing noise
- General block operations
- Specific applications of filtering

4. Feature Extraction and Segmentation

- Detecting edges in an image
- Edge detection functions

UNIT – V: Advanced Communication Technologies

(6 Hrs.)

- GSM/ CDMA
- 3G
- 4G
- 4G VOLTE
- 5G with IOT
- 5G with AI and ML

REFERENCE BOOK

1. MATLAB: A Practical Introduction to Programming and Problem Solving
- Stormy Attaway, Fifth edition.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: PCB Design & Manufacturing

Course Code: 20CERPD1

No. of Hours: 30

Credits: 1

Objectives

- To understand the basics of PCB.
- To provide hands on in soldering techniques.
- To impart skills in designing circuits on PCB.

Course Outcomes

CO1: Understand the types of electrical & electronic components, their representations, applications and the basic concepts of PCB manufacturing process

CO2: Apply the acquired skill to prepare art work for the given circuitry using PCB wizard software.

CO3: Apply different soldering processes, etching and screen printing.

UNIT - I: PCB Designing Methodology

(10 Hrs.)

Introduction to electronic fundamentals & electronic components, PCB need, PCB materials, PCB types – single sided PCB, double sided PCB, PTH, and multi-layer PCB, terms related to PCB – solder side, component side, legend printing (silk screen).

PCB manufacturing process – soldering mask, etching, tinning, drilling, chemicals used in etching process, proportions etc., preparing art work for closed loop control system (temperature controlled fan circuit), preparing art work for given circuitry using PCB wizard software demonstration.

UNIT- II: Hands on/ Skill

(10 Hrs.)

Preparing art work for given circuitry using PCB wizard software and personal computer, screen preparation from prepared art work, screen printing on copper clad, etching process, drilling, soldering types, soldering & de- soldering process, component fixing & soldering, testing for results on prepared PCB.

UNIT- III: Projects

(10 Hrs.)

RPS, IR Remote Tester, Automatic Night Lamp

Reference Text Book

1. Printed Circuit Boards: Design, Fabrication, and Assembly (McGraw - Hill Electronic Engineering)

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: VB.NET

Course Code: 20CERV B1

No. of Hours: 30

Credits: 1

Objectives:

- To introduce programming using VB.NET.
- To emphasize on fundamentals of structured design, development, testing, implementation, and documentation.
- To develop advanced skills in creating user interfaces and managing software properties.

Course outcomes:

CO1: Code programs and develop interface using Visual Basic .Net

CO2: Create applications using Microsoft Windows® Forms.

CO3: Create Crystal Reports.

UNIT – I

(10 Hrs.)

Introducing .NET Framework:

Introduction, Overview of .NET Framework, Objectives of .NET Framework, Architecture of .NET Framework, installing Visual Studio, Opening Visual Studio, Introduction to Visual Studio IDE.

Getting Started with Visual Basic:

Introduction, Visual Basic Statement, Visual Basic Keywords, Operators and their Precedence, Data types, Variables, Constants, Creating a Window Application using Visual Basic

UNIT – II

(15 Hrs.)

Introduction to Windows Forms:

Introduction, A Window Form in Visual Basic, Performing some basic operations on a Windows Form, Working with Windows Controls, Showing and Hiding Forms and Controls, Moving and Resizing Forms and Controls through code, working with multiple Forms, Creating a Message Box, Creating an Input Box.

Basic Programming:

Introduction, If-Then-Else Statement, For Loop Statement, Do Loop Statement, Select Case Statement, While- End While Statement, Arrays.

Standard Controls:

Introduction, Button and Label Controls, Check Boxes, Radio Button, Group Boxes, Panel Control, Picture Boxes, ProgressBar and Timer Controls, TextBox and Rich TextBox Controls, ListBox Control, ListView Control, LinkLabel Control

UNIT – III

(15 Hrs.)

Menus, Build-in Dialog Boxes, and Printing:

Introduction, Menus, FolderBrowserDialog control, OpenFileDialog control, SaveFileDialog control, FontDialog control, PrintDocument control, PrintDialog control.

Mouse and Keyboard events:

Introduction, Mouse Events. Differentiate between Single and Double Click, Keyboard Events.

Working with Databases:

Basic SQL Commands, Overview of ADO.NET Objects, Accessing Data using Data Adapters and Data Sets.

Prescribed Books:

1. Visual Basic with .NET Framework-Simple Steps, DreamTech Press.
2. VB.NET , P. Radhaganeshan, SCITECH.
3. Mastering Visual Basic, Evangelos Petroustos, BPB Publications.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Programming in C

Course Code: 20CERPC1

No. of Hours: 30

Credits: 1

Objectives:

- To develop programming skills
- To choose the right data representation formats based on the requirements of the problem
- To plan structure and content, writing, updating and modifying computer programs for user solutions

Course Outcomes:

CO1: Learn the syntax and semantics of programming language

CO2: Use the 'C' language constructs in the right way.

CO3: Design, develop and test programs written in 'C'

Unit-I:

(15 Hrs.)

Introduction to Programming –High level languages, flowcharts – algorithms –Language Interpreters – Compiling, running, and understanding first program – comments, declaration - C – Language – History - Character set – variables – constants – keywords - Data types - Operators.- declaration of variables, printf function and scanf function.

Control Structures-Decision making – the if – statement – the if else construct - Nested if statement – the else if construct, the Switch statement – Goto -Break-Continue-Looping control structures - for, while and do while.

Unit-II:

(15 Hrs.)

Arrays - single dimensional - double dimensional array – multi dimensional array– Strings - string functions - strlen() - strcpy() - Strcat() - strcmp() – strrev().

Functions – Defining a function – types of functions – recursion in functions - automatic, extern, static and register storage classes.

Structures – Initialization of structures – Array of structures - Unions – declaration – usage.

Unit-III:

(10 Hrs.)

Pointers – definition – declaration – Pointers and functions, pointers and arrays, Files – types of files – file operations – input and output operations in files, the # define statement – the # include statement – preprocessor directives.

Prescribed books

1. Reema Thareja, Programming in 'C', Oxford university press. (Chapters: 1 to 10)
2. Stephen G. Kochan, Programming in C, Third Edition, Pearson Education [2007]
(Chapters: 1 to 14, 16, 17)

Reference Books

1. Beyron S Gottfried, Programming with C, Second Edition, Tata McGraw Hill (2007).
2. Ashok N. Kamathane, Programming with ANSI and Turbo C, Pearson Education (2008).
3. Balaguruswamy.E, Fundamentals of computing, TMH (2008).

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Computer Animations

Course Code: 20CERCA1

No. of Hours: 30

Credits: 1

Objectives:

- To familiarize the students with various software approaches and techniques of Animation Technology.
- To develop competencies and skills.
- To explore different approaches in computer animation.

Course outcomes

CO1: Demonstrate and execute the meaningful animation application using flash techniques.

CO2: Demonstrate an understanding of the multimedia building blocks

CO3: Apply multimedia tools in developing Flash Animations.

Unit I:

Introduction to Animation

(10 Hrs.)

Concept of Animation, History of Animation, Principle of Animation, Types of Animation, Concept of 2D, 3D Animation

Unit II:

Working with Layers

(10 Hrs.)

Introduction to layers, hides and show layers, lock a layer, add and name layer, change the order of Layers, organize layers in folder. Types of Layers- guide layer, mask layers, layer properties, masking animation, masking frame by Frame

Unit III:

Working with Graphics using Flash

(20 Hrs.)

Working with elements, working with Text - breaking a part the Text, working with Colors, working with graphics importing & working with Bitmaps, Jpeg, gif, etc. Break apart.

Creating Flash Elements: Working with Object - Drawings, creating, moving, drag, cutting, copying and selecting Objects, Transforming Objects, Rotating and skew an object, flipping an object, restoring a transformed object.

Working with symbol and Instances: About the symbol, creating and deleting symbols, duplicate and modify an instance of a symbol, Types of symbol- Movie clip, Button, Graphics.

Marking Positions- What is Onion Skinning & its Types & uses.

Reference Books:

- 1) Flash CS3 in simple Steps-Cogent Learning Solution- Dreamtech Press
- 2) Flash 8-Straight to Point by Dinesh Maidasani –Firewall Media Publisher
- 3) Macromedia Flash 8: A Tutorial Guide, author- Jay Armstrong, Jen deHaan-BPB Publisher.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA - 8
(Affiliated to Krishna University, Machilipatnam)
SYLLABUS

Course Title: Agricultural Biotechnology
No. of Hours: 30

Course Code: 20CERAB1
Credits: 1

Objectives:

- To learn the basic concepts of agricultural biotechnology
- To study biofertilizers, biopesticides and vermicomposting

Course outcomes:

CO1: Identify and isolate the nitrogen fixing bacteria Rhizobium, azatobactor.

CO2: Prepare biofertilizers, biopesticides.

CO3: Practice vermicomposting

Unit I (6 Hrs.)

Introduction to Agricultural Biotechnology.

Rhizobium - Introduction, media composition, isolation, identification, mass production, preparation and assay of biofertilizer

Unit II (6 Hrs.)

Azatobacter- introduction, media composition, isolation, identification, mass production, preparation and assay of biofertilizer.

Biopesticides- introduction, types, preparation.

Unit III (6 Hrs.)

Integrated pest management.

Vermicomposting- types of earth worms, raw materials and bed management.

Hands on/ Skill based activities (12 Hrs.)

1. Isolation and Identification of symbiotic nitrogen fixing bacteria (Rhizobium).
2. Isolation and Identification of asymbiotic nitrogen fixing bacteria (Azatobacter)
3. Preparation and assay of Rhizobium and Azatobacter biofertilizers.
4. Preparation of Biopesticide.
5. Vermicomposting.

References:

1. Pratical Microbiology, first edition, S. Chand and company ltd – R.C. Dubey.
2. D.K. Maheshwari.
3. Biotechnology, first edition, Saras publications- V. Kumaresan.
4. Plant Biotechnology, second edition, Rastogi publications - P.K. Gupta
5. Biotechnology- U. Satyanarayana.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Mushroom Cultivation

Course Code: 20CERMCI

No. of Hours: 30

Credits: 1

Objectives

- To understand the various prospects of cultivation of different types of edible Mushrooms
- To learn cultivation techniques and preservation methods.

Course outcomes

CO1: Classify Mushrooms and differentiate poisonous and edible mushrooms

CO2: Summarize different cultivation techniques and practice cultivation of edible mushrooms

CO3: Apply post harvest procedures in cultivation and develop marketing strategies.

Unit – I

(10 Hrs.)

1. Introduction, Classification of mushrooms, Basidiocarp structure and anatomy.
2. Importance of mushrooms, Nutritional values, Medicinal values, Composition, Differentiation of poisonous and edible mushrooms.

Unit – II

(10 Hrs.)

1. Cultivation of Milky mushrooms, Procedure including Spawn preparation and Harvesting.
2. Cultivation of Oyster mushrooms, Detailed procedure including Spawn preparation and Harvesting

Unit – III

(10 Hrs.)

1. Different types of Cultivation techniques.
2. Preservation, Canning and Marketing of mushrooms, Financial assistance etc.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Herbal Medicine

Course code: 20CERHM1

No. of Hours: 30

Credits: 1

Objectives

- To obtain the knowledge on herbal medicine and indigenous medicinal system in India
- To know about basic concepts of Indian medicinal system i.e. Ayurveda, Homoeopathy, Siddha, Unani, Yoga and Naturopathy
- To understand the Indian medicinal system

Course Outcomes

CO1: Understand the local herbs, collection and preservation for future

CO2: Gain the knowledge of herbal medicine for human diseases

CO3: Learn the usage of common herbs

Unit I: Introduction: scope and importance of Herbal medicine **(3 Hrs.)**

Unit II: Basic concepts of Indian medicinal system (3 Hrs.)

(Ayurveda, Homoeopathy, Siddha, Unani, Yoga and Naturopathy)

Unit III: Herbal medicine for human diseases (3 Hrs.)

1. Diabetes - Gymnema sylvestre, Curcuma longa
2. Diarrhoea - Carum copticum, Cuminum cyminum
3. Rheumatism - Vitex negundo, Ricinus communis
4. Hypertension - Zingiber officinale, Rauwolfia serpentina
5. Cancer - Catharanthus roseus , Asparagus racemosus
6. Nausea - Elettaria cardamomum, Punica granatum

Unit IV: Current concepts of food and nutrition (3 Hrs.)

1. Kitchen remedies (Turmeric, Asafoetida, Blackpepper, Jeera, Ginger, Garlic, Fenugreek, coriander, curry leaves)
2. Common Herbal remedies (cosmetics–Hibiscus, Abrus, Lawsonia Eclipta, Aloe vera, Tephrosia), Adulterants

Unit V: Collection of medicinal plants and preservation methods (3 Hrs.)

Practical's / Hands on training

(15 Hrs.)

1. Identification and study of various medicinal plants prescribed in the theory syllabus.
2. Detailed morphological study of medicinally important plants and plant products.(Kitchen remedies, common herbal remedies, herbal medicine for human diseases)
3. Collection of medicinal plants and products and their preservation methods.
4. Field visit to local areas to collect the medicinal plants and products.
5. Medicinal plants list

Reference Books

1. Field guide on Medicinal plants-Forest department.- AP 1999.
2. Herbal Medicine for diseases – Irfan Ali khan, Adiya khanum Vol 1 & 2.
3. Medical Botany – 3 B.Sc (common core) - A.S.S.Ammanna Sastry & A.V.Subbalakshmi.
4. Medical Botany & Pharmacognosy- E.John Jyothi Prakash.
5. Plant products- A.S.S.Ammanna Sastry & A.V.Subbalakshmi.
6. R.C.Rajak & M.K.Rai. Herbal medicines biodiversity and conservation strategies.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Vermitechnology

Course Code: 20CERVY1

No. of Hours: 30

Credits: 1

Objective:

- To make wealth out of waste- adopt eco - friendly techniques
- To create a pollution free environment, income and to impart technical and marketing skills.

Course Outcomes:

CO1: Learn to convert solid waste to fertilizer/manure

CO2: Understand morphology of the heat resisting varieties of earthworms

CO3: Identify the difference in chemical fertilizers & organic bio manures.

Unit – I

5 Hrs

Importance of Vermitechnology – Advantages, Chemical fertilizers, Organic fertilizers, Economic evolution, Differences and Comparison between Vermicompost and Chemical fertilizers.

Unit – II

5 Hrs

Sustainable development and Environmental activities, recycling of Organic wastes, methods, techniques, Biology of Red Worms, types and required physical parameters- Vermicomposting, principles, practice and procedure.

Unit – III

5 Hrs

Application of biomanure to different crops, Organic materials and uses, Management of biomanure plant, construction of compost beds, Management techniques, systems of vermicomposting, marketing methods, Economics of compost production, Planning of project and Cost.

Skill Enhancement: Practicals

15 Hrs

1. Preparation of Compost Bed. Bed material
2. Examination of worms and cocoons
3. Study of Bed condition and Parameters
4. Estimation and Analysis of Compost
5. Marketing techniques – Yield
6. Economics-Preservation, packing, sieving, weighing and transportation

Prescribed Text Books:

A Text book of Vermicompost - Dr Kesav Singh, Dr Gorakh Nath
Vermicompost Production - Dr S Rehan Ahmad

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8
(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Ornamental Fish Culture

Course Code: 20CEROF1

No. of Hours: 30

Credits: 1

Objectives:

- To provide skill based education to make them entrepreneurs.
- To provide an opportunity to set a unit to gain yield and income.

Course Outcomes:

CO1: Understand the practical set up skill along with the growing knowledge.

CO2: Learn different varieties of Ornamental fish with rearing techniques.

CO3: Acquire to generate income in a limited space.

CO4: Develop Technical and Marketing skills.

Unit – I

5 Hrs

Introduction to Ornamental Fish Culture, Export Potential, Current Status, Importance and Advantages, Different varieties of commercially important Ornamental fishes, identification characters and their trade names. Basic health care in aquarium fishes, common ailments and treatments, Transportation of Ornamental fishes, Economics of aquarium fish. Aerators- air lift pump, air store, cleaning and maintenance of aquarium.

Unit – II

5 Hrs

Water quality management and maintenance, color, temperature, transparency, PH, dissolved oxygen, free carbon dioxide, total hardness, salinity, Construction of home aquarium: wall, bed, filling up the tank, lighting, stocking, aquatic plants, other requirements-hand nets, gravel, pebbles, sea plants, gums, filters-mechanical/biological.

Unit – III

5 Hrs

Food and feed management in ornamental fishes, feed preparation, feed formulation and feeding rate. Different kinds of feed, live feed and dry feed. Culture of fish food organisms, Breeding habits Choosing breeding stock, Breeding of egg layers, live bearers, spawning care, care after spawning.

Unit – IV Practicals

15 Hrs

1. Construction of Aquarium and Estimation for Oxygen and pH
2. Identification of Phytoplankton, Zooplankton and Fish Food Organisms & Aquatic Plants
3. Fish feed preparation and composition.
4. Identifying the diseases and fish parasites
5. Field trip to nearest Ornamental fish farm

Reference Books

1. Live Bearing Fishes-Peter Wscott, London, 2000 Interpet Publishing, U.K.
2. Central Institute of Fishery Education, Mumbai-Training Manual
3. Aquarium Owner's Manual - Gina Sanford, D. K. Publications, London
4. Ornamental Fish of India-Dr. Archana Sinha, CIFE, Mumbai
5. Aquarium Hand Book-Sabastian, Kuravarveli

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8
(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

**Course Title: An Introductory Course to
Green Chemistry**

**Course Code: 20CERGC1
Credits: 1**

No. of Hours: 30

Objectives

- To learn the 12 basic principles of Green Chemistry and their importance in establishing sustainable life on earth.
- To understand the tools in Green Chemistry
- To gain Knowledge on green solutions, sustainable substituents

Course outcomes

CO1: Outline the basic concepts and principles of Green Chemistry

CO2: Summarize possible ways of reducing pollution by usage of biocatalysts, Bioconversions, Green Synthesis, Green Solvents etc.

CO3: Explain different means of improving conditions for safe and life.

Unit I: Green Chemistry- An overview

(10 Hrs.)

- 1.1 Introduction
- 1.2 Basic concepts-Definition
- 1.3 Principles
- 1.4 Importance
- 1.5 Goals

Unit II: Tools in Green Chemistry

(10 Hrs.)

- 2.1 Biocatalysts
- 2.2 Green House Effect
- 2.3 Green Solvents
- 2.4 Green Synthesis
- 2.5 Bioconversions

Unit III: Safe and Sustainable Future

(10 Hrs.)

- 3.1 Utilization of Renewable and Biological Materials
- 3.2 Use of Biodegradable plastic
- 3.3 Control and Prevention of Pollution
- 3.4 Safe Disposal of toxic by-products
- 3.5 Education about Sustainability

REFERENCE BOOKS

- 1. Green Chemistry: Environmentally benign reactions – V.K. Ahluwalia
- 2. Chemistry for Green Environment – M.M. Srivastava

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Bakery & Confectionery

Course Code: 20CERBC1

No. of Hours: 30

Credits: 1

Objectives

- To get nutritional awareness and implement food-for-life principles
- To understand a solid foundation of techniques for food preparation

Course Outcomes

CO1: Develop skill in various baking procedures

CO2: Handle equipment & ingredients used in baking

CO3: Start a small bakery unit at home

UNIT-1

(5 Hrs.)

Bakery Industry: Current status, growth rate, and economic importance of Bakery Industry in India. Product types, nutritional quality and safety of products, pertinent standards & regulations.

Unit – II

(5 Hrs.)

Cakes making process: Ingredients & processes for cakes, Equipments used, product quality characteristics, faults and corrective measures. Different types of icings.

Unit – III

(5 Hrs.)

Biscuits and cookies making process: Ingredients & processes, Equipments used, product quality characteristics, faults and corrective measures.

Unit – IV (Practicals)

(15 Hrs.)

1. Assessment of raw materials
2. Preparation of bread and assessment of its quality
3. Preparation of sponge cake with icing and assessment of its quality
4. Preparation of biscuits and Chocolates, assessment of its quality

Prescribed Text Book:

Raina et.al. (2003). Basic Food Preparation-A complete Manual. 3rd Ed. Orient Longman Pvt. Ll.

Recommended text Book:

Dubey, S.C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt. Ltd.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Epidemiology of Infectious Diseases

Course Code: 20CEREI1

Credits: 1

No. of Hours: 30 Hrs.

Objectives

- To know about the infectious diseases
- To estimate the epidemiology of diseases
- To learn the clinical diagnosis of bacteria and fungi

Course outcomes

CO1: Understand the pathogen morphology

CO2: Learn the epidemiology of infectious diseases

CO3: Clinical trials for bacterial and viral diseases

Unit – I: Bacterial Diseases

(5 Hrs.)

Introduction to Bacteriology- properties, types of bacteria. Definition of infection, diseases, and different types of Bacterial Diseases., epidemiology, types, Sources, transmission, pathogenicity, symptoms, treatment, Prevention of – Strep throat, bacterial urinary tract infections caused by Coli bacteria, bacterial food and water poisoning often caused by *Clostridium botulinum* vibrio *E. coli*, *Salmonella*, *Shigella*, bacterial VA gnosis, Gonorrhea Chlamydia, Syphilis.

Unit – II: Fungal Diseases

(5 Hrs.)

Introduction to Mycology: properties types of Fungal Disease. Epidemiology, types, sources, mode of transmission, symptoms, Diagnosis, treatment and prevention of - vaginal yeast infections, Athletic Foot disease, Ring Worm infection.

Unit – III: Viral Diseases

(5 Hrs.)

Introduction to Virology: properties types of viruses and viral diseases. Epidemiology, sources, mode of transmission, symptoms, Diagnosis, treatment and prevention of Chicken Virus, flu, COVID - 19 virus, Rabies. Sexually Transmitted viral disease Herpes simplex, HIV, HPV, Hepatitis – B.

Unit – IV: Hands on training

(15 Hrs.)

Clinical Diagnosis of Bacterial disease like UTIs, Typhoid, Salmonellosis, shigellosis, Clinical Diagnosis of STD like – HIV, HPV, Syphilis, Clinical Diagnosis of Fungal Diseases like Vaginal infection.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: MSP for Agricultural Crops in AP Course Code: 20CERMA1

No. of Hours: 30

Credits: 1

Objectives

- To understand the basic concepts of MSP
- To determine MSP for agricultural, Horticultural crops

Course outcomes

CO1: Outline the basic concepts of MSP

CO2: Determine MSP for agricultural, Horticultural crops

CO3: Explain the role of MSP in economy

UNIT I (6 Hrs.)

1. Introduction to MSP - History, definition
2. Brief description on MSP in AP

UNIT II (6 Hrs.)

1. Determination of MSP in Agricultural Crops
2. Determination of MSP in Horticultural Crops

UNIT III (6 Hrs.)

1. Daily Determination of MSP in Krishna district

UNIT IV (6 Hrs.)

1. Role of MSP in Indian Economy

UNIT V (6 Hrs.)

1. Role of MSP in AP Economy

REFERENCE

1. ^ Budget 2018 on Agriculture: Can new MSP prop up rural economy? - Livemint
2. ^ Jump up to:^{a b} "CACP". *cacp.dacnet.nic.in*. Commission for Agricultural Costs and Prices. Retrieved 24 September 2020.
3. ^ Budget 2018: Focus on MSP ideal for tackling farm distress - The Economic Times
4. ^ Agriculture
5. ^ "Calculation of MSP". *pib.gov.in*. Ministry of Agriculture & Farmers Welfare. 3 March 2020. Retrieved 2020-12-05.
6. ^ "Minimum Support Prices". *farmer.gov.in*. Retrieved 2020-12-25.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8
(Affiliated to Krishna University, Machilipatnam)
SYLLABUS

Course Title: Seed Bed Preparation

Course Code: 20CERSP1

No. of Hours: 30

Credits: 1

Objectives

- To learn the basic concepts of seed bed preparation
- To understand types and treatment of seed beds

Course Outcomes

CO1: Outline the methods of preparation of seed beds

CO2: Discuss different types of seed beds and their treatment.

UNIT I (6 Hrs.)

1. Introduction to seed bed - History, definition
2. Brief description methods of preparation of field

UNIT II (6 Hrs.)

1. Procedure for preparation of seed bed by step by step
2. Materials used for seed bed of greenhouses

UNIT III (6 Hrs.)

1. Different types of seed bed

UNIT IV (6 Hrs.)

1. Seed bed treatment

UNIT V (6 Hrs.)

Advantages and Disadvantages in seed bed

REFERENCES

1. Holzworth, L.K., Wiesner, L.E., and Bowman, H.F. Grass and Legume Seed Production in Montana and Wyoming. Special Report No. 12. Revised 1990. 31p.
2. Montana State University, Extension Service. Montana Interagency Plant Materials Handbook for Forage Production, Conservation, Reclamation, and Wildlife. EB 69. June 1990. Pgs. 175-185.
3. Ogle, D., St. John, L, Cornwell, J., Stannard, M., and Holzworth, L. 2008. Technical Note 10. Pasture and Range Seedings: Planning-Installation-Evaluation. USDA-Natural Resources Conservation Service. Boise, ID; Bozeman, MT; Spokane, WA
4. Stannard, M. 2005. Technical Note 6. Seedbed Preparation and Seed to Soil Contact. USDA Natural Resources Conservation Service Washington Plant Materials Center.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Beauty Management

Course Code: 20CERBM1

No. of Hours: 30

Credits: 1

Objectives:

- To develop personal attire skills.
- To provide professional skills related to beauty management.

Course outcomes:

CO1: Ability to manage a beauty salon or Spa.

CO2: Start up their own beauty salons.

CO3: Groom themselves for professional and personal programme.

Unit - I: (10 Hrs.)

Threading-Dye/Colouring Facials: Herbal

Unit - II: (5 Hrs.)

Hair Spa -Hair oil massage - Creative Haircuts-Hair Straightening

Unit - III: (5 Hrs.)

Manicure -Pedicure-Hands &Legs Wax

Unit - IV: (10Hrs.)

Makeup: Simple Makeup, Party Makeup, Glossy Makeup Concealer Makeup, Bridal Makeup

Reference Books:

1. Mary.M,The Beautician, Publisher: www.lulu.com,2016
2. Nirmala Sherry, Tips for Hair and Skin care for monsoon, Westland Publisher, July 2017.
3. Raymond Region, Hair stylist 101 tips, Raymond Ringer publisher, 2017.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Cutting and Tailoring

Course Code: 20CERCT1

No. of Hours: 30

Credits: 1

Objectives

- To Identify various tools and equipment used in cutting and tailoring
- To inculcate knowledge on cutting & tailoring and to encourage it as a profession.

Course Outcomes

CO1: Introduction to cutting & tailoring

CO2: Develop business and personal attire skills.

Unit - I: (10 Hrs.)

Marking – How to mark dresses & blouses.

Unit - II: (5Hrs.)

Cutting – Cutting Process for dress & blouse

Unit - III: (15Hrs.)

Stitching - stitching various models of dresses and blouse

References

1. Manual Reference

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8
(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Happiness Program

Course Code: 20CERHP1

No. of Hours: 30

Credits: 1

Objectives:

- To develop self-awareness, compassion, selflessness & self-confidence.
- To enhance team work through team activities & interactions.

Course Outcomes:

CO1: Develop positive approach towards life and show compassion and selflessness.

CO2: Apply theoretical knowledge of controlling anger into practice.

CO3: Utilize the opportunities and helps to be in the present moment.

UNIT-I: (5 Hrs.)

Knowledge sessions-Team interactions-Yoga asanas -Games.

UNIT-II: (10 Hrs.)

Daily Sutras, Emotional Well Being, Team activity-Games, Energy flowing pranayam, Breathing Techniques.

UNIT-III: (10 Hrs.)

Interaction sessions, stress relief pranayam, yoga asanas, Games.

UNIT-IV: (5 Hrs.)

Alternate nostril breathing technique (Nadi shodhan pranayam), Yoga Asanas, Team Activity

References

1. Sri Sri yoga
2. Wikipedia.
3. Ted X.
4. Sri Sri knowledge points

MARIS STELLA COLLEGE (AUTONOMOUS) VIJAYAWADA - 8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Painting & Maggam Work

Course Code: 20CERPM1

No. of Hours: 30

Credits: 1

Objectives

- Develop the fundamentals of Painting.
- To increase the customer base and boost revenue.

Course outcomes

CO1: Enjoy paintings as a medium of expressions

CO2: Appreciate the beauty in lines, forms and colors

CO3: Apply the fundamentals in painting

Unit-I: (5 Hrs.)

History of Indian painting:- (Primitive to Pahari) Introduction of art, Pre-historic Painting in India, Indus Valley, Jogimara, Ajanta, Bagh, Badami, Sittanvasal, Ellora, Elephanta, Tanjavur, Pal school & Jain school of Painting.

Practical:

Unit-II: (5 Hrs.)

Free Hand Drawing:- (Out Door) – Free hand Drawing from Nature, Animals, Birds, Human etc. in different posture- Practical:

Unit-III: (5 Hrs.)

Outline- Filling – Shading – Water Technique – One stock painting

Skills/ Hands on: (15 Hrs.)

1. Knowledge of art material
2. Create realistic images
3. Drawing skills and techniques
4. Oil and water colour painting
5. Active listening

References:

1. Manual Reference

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

(Affiliated to Krishna University, Machilipatnam)

SYLLABUS

Course Title: Art of Living

No. of Hours: 30

Course Code: 20CERAL1

Credits: 1

Objectives

- To enhance concentration, memory power and to manage stress
- To practice mental hygiene and emotional stability

Course Outcomes

CO1: Demonstrate basic skills associated with yoga including strength and flexibility.

CO2: Apply the knowledge of stress management through meditation.

CO3: Develop and nurture a deep understanding of personal motivation.

UNIT-I: Yoga

(10 Hrs.)

Introduction to yoga – Reasons for yoga – Benefits of suryanamaskar–Yoga to improve smile – Energy enhancing yoga – Yoga and time management – Asanas of yoga

UNIT-II: Meditation

(10 Hrs.)

Meditation for stress – Meditation for anxiety: 4 ways to beat anxiety– Meditation for insomnia – Meditation for concentration on studies.

UNIT-III: Personality Development

(10 Hrs.)

Knowledge sessions – Team interaction – Games in relation to happiness– Motivation sessions – Ice - breaking sessions

References:

1. Sri Sai Yoga
2. Sri Sri knowledge points
3. Ted X

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

Course Title: Business Analytics

Course Code: 20CERBA1

No. of Hours: 30

Credits: 1

Objectives

- To recognize, understand and apply the language, theory and models of the field of business analytics
- To foster an ability to critically analyse, synthesize and solve complex unstructured business problems

Course Outcomes

CO1: Apply critically the concepts and methods of business analytics.

CO2: Identify, model and solve decision problems in different settings.

CO3: Interpret results/solutions and identify appropriate courses of action for a given managerial situation whether a problem or an opportunity.

UNIT - I:

(10 Hrs.)

Modern Data Management- Big Data, Marketing Research. Data Mining- Statistical Applications in Management, Business Forecasting with Time Series Models, the Art and Science of Prediction, Marketing Analytics

UNIT - II:

(10 Hrs.)

Applications of Operations Research- Operations Research Implementations, Optimization Methods in Finance, Optimization for Interactive Marketing, Optimization Models for Operations, Demand Management and Price Optimization

UNIT - III:

(10 Hrs.)

Technology Strategy- Strategic IT, Interactive Marketing, Digital Marketing and Social Media Strategy, Business Networks

Reference Books:

1. Successful Business Intelligence: Unlock the Value of BI & Big Data by Cindi Howson
2. Business Intelligence Guidebook: From Data Integration to Analytics by Rick Sherman
3. Business Intelligence for Dummies-Swain Scheps
4. Business Intelligence: The Savvy Manager's Guide-David Loshin

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

Course Title: Securities Market

Course Code: 20CERSM1

No. of Hours: 30

Credits: 1

Objectives

- To provide the students with the basic principles and techniques of security analysis.
- To understand the principles of securities trading and regulation.

Course outcomes

CO1: Acquire the concepts of securities

CO2: Identify the different equity valuation models and financial statement analysis

CO3: Appreciate other topics related to security analysis

UNIT - I:

(10 Hrs.)

Investment Environment, Markets and Instruments: Real versus Financial Assets - Financial Markets and the Economy - Clients of the Financial System - Markets and Market Structure - The Money Market - The Bond Market - Equity Securities - Market Indexes - Derivatives Markets.

UNIT - II:

(10 Hrs.)

Securities - Investment Banking - Securities Trading - Trading Participants - Local Exchanges (PSE, PDEx) - Foreign Exchanges

UNIT - III:

(10 Hrs.)

Securities Regulation - The Securities and Exchange Commission - The International Organization of Securities Commissions - Registration of Securities - Investor Protection - Manipulation of Security Prices - Insider Trading - Tender Offer - White Collar Crimes Related to Securities

References:

1. Bodie, Z., A. Kane and A.J. Marcus. (2002). Investments. New York: McGraw-Hill Companies, Inc.
2. Decasa, L.M. (2013). Securities Regulation Code (Republic Act No. 8799): Annotated with Implementing Rules and Regulations. Manila: Rex Book Store.
3. Graham, B. and D.L. Dodd. (2009). Security Analysis: Principles and Technique. New York: McGraw Hill Companies, Inc.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

Course Title: Drawing & Painting

Course Code: 20CERDP1

No. of Hours: 30

Credits: 1

Objectives

- To draw scale and proportion, accuracy of shape, contour of 3-dimensional form.
- To learn positive and negative shape.

Course Outcomes

CO1: Enjoy paintings as a medium of expressions.

CO2: Identify different types of stocks.

CO3: Instigate creativity.

UNIT-I: (10 Hrs.)

History of Indian painting- (Primitive to Pahari) Introduction of art, Pre-historic Painting in India, Indus Valley.

UNIT-II: (10 Hrs.)

Free Hand Drawing- (Out Door) – Free hand drawing from nature, Animals, Birds, Human etc. in different posture- Practical:

UNIT-III: (10 Hrs.)

One stock painting - Types of shades: Pencil art, Pencil Check. Glass painting.

References:

1. Cyclopedia of painters and paintings, by J. D. Champlin & C. C. Perkins.
2. Bryan's dictionary of painters and engravers.
3. Biographical dictionary of medalists: by Leonard Forrer

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8

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SYLLABUS

**Course Title: E-Commerce & Digital
Marketing (APSSDC)**

Course Code: 20CERCD1

Credits: 1

No. of Hours: 30

Objectives

- To familiarize the students about e-commerce and marketing.
- To develop practical knowledge in digital marketing.
- To explore different approaches in computer animation.

Course outcomes

CO1: Differentiate traditional marketing and digital marketing

CO2: Demonstrate social media marketing with Google ad works

CO3: Analyse the concepts of Affiliate marketing and Content marketing

Unit - I

(10 Hrs.)

Digital marketing introduction, Digital marketing vs. Traditional marketing, Website planning process, Search engine optimization, Search engine algorithms

Unit - II

(10 Hrs.)

Local seo & seo project essentials, Social media marketing, Google analytics, Google adwords & online display advertising

Unit - III

(10 Hrs.)

Affiliate marketing, Content marketing, Email marketing, Blogging & freelancing to make money

Reference Books:

- E-commerce: An Indian perspective by S.J.P.T. Joseph, 6th edition, PHI
- Fundamentals of Digital Marketing by Puneeth Singh Bhatia, Pearson

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8
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SYLLABUS

Course Title: Amazon Web Services (APSSDC) Course Code: 20CERAW1
No. of Hours: 30 Credits: 1

Objectives

- To familiarize the students on Cyber Security.
- To develop skills in AWS.
- To explore security management in AWS.

Course Outcomes

C01: Explain the basic concepts of Computer and its storage devices.

CO2: Describe the concepts of cyber security and data analysis

C03: Apply the concepts of security management to design AWS programs.

Unit - I

(10 Hrs.)

Computer Basics

Definition of Computer, types of computer, networks, hardware, input devices, output devices, storage devices, CPU, what is software, how do computer works, RAM (Random Access Memory), ROM (Read Only Memory), the motherboard.

Variables and Programming

Introduction, Rules to declare variables, Declaration of variables, Integer Constants, Decimal Integer, Octal Integer, Hexadecimal integer

Unit - II

(10 Hrs.)

Cyber Security

Introduction, meaning of Cyber Security, Need of Cyber Security, major security problems, viruses and worms, Hackers, types of hackers, how to prevent hacking, malware, how to stop malware.

Data Analysis

Basics, analyzing and interpreting data, data collection, qualitative data analysis, quantitative data analysis.

Unit - III

(10 Hrs.)

AWS Cloud Literacy

Introduction to AWS, Introduction to Cloud Computing, Object Storage Options, security management in AWS, Amazon EC2, database services and analytics, networking and monitoring services, application services, impact of computing.

Reference Books:

- Aws (amazon web services) – 2021: the complete guide for beginners for Amazon Web Services – Richard Derry
- Introduction to cyber security : Guide to the world of cyber security- Anand shinde

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8

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SYLLABUS

Course Title: Event Management

Course Code: 20CEREM1

No. of Hours: 30 Hrs

Credits: 1

OBJECTIVES

- To develop planning and organising skills for various events.
- To enhance time and resource management skills.
- To impart entrepreneurial skills.

COURSE OUTCOMES

- CO1:** Students will get an opportunity to develop their creativity and innovative skills.
- CO2:** Students will learn about staging events such as corporate meetings, weddings, entertainment and birthday parties through practical exposure.
- CO3:** Students will acquire financial planning, marketing and human resource management skills and finally, this course will help students to establish a career in event management.

UNIT – I

(5 HRS)

Events and types of Events, Events as Communication Tool, Events as Marketing Tool, Need of Events, Elements of Event Management.

UNIT - II

(10 HRS)

Conceptualisation and Planning, Organisation, Programming and Service Management, Event Staging, Crowd Control Plans and Procedures.

UNIT – III

(10 HRS)

Human Resource Management, Generating Revenue, Risk Management – Health & Safety, Legal Knowledge required for Business Compliance.

UNIT – IV

(5 HRS)

Market Research, Communication – Reaching the Customer, Evaluation & Impact Assessment, Sustainable work practices.

References

1. Principles of Event Management (including Skill Development) – K. Ramachandra, S. Alta Bakash, S. Nagabhushana. Himalaya Publishing House.
2. Event Entertainment and Production – Mark Sonder, CSEP, Wiley & Sons Inc.
3. Event Management by Swarup K. Goyal – Adhyayan Publisher.
4. Event Management and Public Relations by Savita Mohan – Enkay Publishing House.

LIST OF ACTIVITIES

- Lecture on various topics of Event Management unit wise by the Instructor.
- PowerPoint presentations on Event Management Topics by the Instructor.
- Tips on Financial Forecasting of various events by the Instructor.
- Guest Lectures/Workshops by industry experts arranged by department /instructor or both.
- Field visits arranged for students to visit and gain practical exposure during staging of events by the Instructor.

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA-8
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SYLLABUS

Course Title: Soft Toy Making

Course Code: 20CERST1

No. of Hours: 30

Credits: 1

Objectives

- To demonstrate soft toy making as a self-employment occupation.
- To impart necessary technical competencies like skill and knowledge to enable the same.

Course Outcomes

CO1: Explain the importance of embarking on self-employment.

CO2: Demonstrate necessary technical and personal skills in soft toy making.

CO3: Plan the costing and production of good quality soft toys.

UNIT - I:

(10 Hrs.)

Introduction: Importance of soft toy making as a self-employment option, use of soft toys, classification of soft toys, different parts of soft toy, shape and position of eyes, ears, nose, and mouth, fabric used(fur and felt), basic steps in pattern, paper cutting, and mould making.

UNIT - II:

(10 Hrs.)

Manufacturing: Fabric cutting, sewing by hand (machine), inversion, eyes and nose punching, stuffing, back closing, finishing, quality checking, packing, preparation of purse, ball, and flower.

UNIT - III:

(10 Hrs.)

Retailing: Preparation of teddy bear, panda, and monkey, fixing the cost of the soft toy, collaborating with stakeholders, sell soft toys and related items through retail outlet and online sales.

Reference

Manual

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SYLLABUS

Course Title: English for Communication Course Code: 21CERCE1
& Employability (Online/Offline) Credits: 1

No. of Hours: 30

Objectives

- To improve English communication skills for success in future studies or employment goals.
- To be able to make mini presentations.

Course Outcomes

CO1: Create and deliver mini presentations.

CO2: Write a resume and cover letter.

CO3: Practice interview skills.

Unit I: Discussions

(10 Hrs.)

1. Introductions
2. Popular culture - Music
3. Current events

Unit II: Academic Presentations

(10 Hrs.)

1. What makes a good presentation?
2. Food
3. Travel

Unit III: Employability

(10 Hrs.)

1. Resumes
2. Cover Letter – Part I
3. Cover Letter – Part II
4. Interviews
5. Course Reflection

MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8

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SYLLABUS

Course Title: Proficiency in English (Online)

Course Code: 21CERPE1

No. of Hours: 30 Hrs.

Credits: 1

Objectives

- To be able to write proper sentences.
- To use grammar effectively.

Course Outcomes

CO1: Improve vocabulary in English.

CO2: Develop reading and writing skills.

CO3: Practice speaking skills.

Unit - I: Writing Skills

(10 Hrs.)

1. Professional writing
2. Sketching & structuring an argument
3. Editing & proofing
4. Presentation skills

Unit - II: Vocabulary

(10 Hrs.)

1. Improving vocabulary
2. Colloquialism
3. Idioms
4. Business Jargon
5. Financial Terms

Unit - III: Grammar

(10 Hrs.)

1. Punctuation Marks
2. Parts of Speech
3. Articles
4. Tenses
5. Concord
6. Conditional