Don Bosco College(Co-Ed) Yelagiri Hills Department of Computer Application Course Outcomes for 2022 Curriculum

LT10	TAMIL I	6	0	4
SEM I	LANGUAGE	Lecture	Practical	Credit

பயன் :

- தமிழின் புதுக்கவிதைகள் உள்ளடக்கியபடைப்பிலக்கியங்களை இப்பாடம் அறிமுகம் செய்கிறது
- தமிழ் இலக்கியத்தில் தேர்தெடுக்கப்பட்டமிகமுக்கியமானசெய்யுட்கள்,கவிதைகள், கதைகள்.
- உரைநடைஆகியவற்றைக்கொண்டு இப்பாடம் கட்டமைக்கப்பட்டுள்ளது. மாணாக்கரின் இலக்கியத் தேடலைஉருவாக்குவதும்,
- தற்சார்புடையஅறிவைமேம்படுத்துவதும் இப்பாடத்தின் நோக்கமாகும்.

SEM I	GENERAL ENGLISH	Lecture	Practical	Credit
FLE 10	COMMUNICATIVE ENGLISH I	6	0	4

- CO 1 The students get to learn more about various ways of using LSRW
- CO 2 Able to understand the proper usage of a language
- $\operatorname{CO}3-\operatorname{Will}$ build up interpersonal communication by reinforcing basic of pronunciation
- CO 4 Improve conversational skills

CO 5 – Enable to familiar with the sounds of the English vocabulary, grammer

SEM I	ENGLISH	Lecture	Practical	Credit
FLE 10	PROFESSIONAL ENGLISH I	6	0	3

Course Outcomes:

CO1 - Recognize their own ability in using the language for speaking with confidence in an intelligible and acceptable manner

- CO 2 Understand the importance of reading for life
- CO 3 Read independently unfamiliar texts with comprehension
- CO 4 Understand the importance of writing in academic life

Write simple sentences without committing error of spelling or grammar

SEM I	CORE THEORY	Lecture	Practical	Credit
FCA11	PROGRAMMING IN C	6	0	4

- 1. The Student will be able to understand the concepts of Constants, Variables, and Data
- 2. Types, Operators and Expressions
- 3. The Student will be able to understand the concepts of Managing Input and Output
- 4. Operations, Decision Making and Branching, Decision Making and Looping.
- 5. The Student will be able to understand the concepts of Arrays, Character Arrays and
- 6. Strings, User Defined Functions.
- 7. The Student will be able to understand the concepts of Structure and Unions, Pointers,
- 8. File Management in C.
- 9. The Student will be able to understand the concepts of Fundamental Algorithms,
- 10. Factoring Methods.

SEM I	ALLIED I	Lecture	Practical	Credit
FAMA15B	MATHEMATICAL FOUNDATIONS I	7	0	3

1. After completion of unit 1 student can able to understand about symbolic and logical operators

2. After completion of unit 2 student can able to understand about Set Theory

3. After completion of unit 3 students are able to understand about Binary Operations.

4. After completion of unit 4 student can able to understand about Differentiation

5. After completion of unit 5 student can able to understand about Two dimensional analytical geometry

SEM I	CORE PRACTICAL	Lecture	Practical	Credit
FPCA13	C PROGRAMMING LAB	0	3	2

Course Outcomes:

CO1 - Enhance the analyzing and problem solving skills and use the same for writing programs in C.

CO2 - Write diversified solutions, draw flowcharts and develop a well-documented and Indented program according to coding standards.

CO3 - Learn to debug a given program and execute the C program.

CO4 - To have enough practice the use of conditional and looping statements.

CO5 -	To imp	lement arrays	, functions	and pointers.
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SEM I	ENVIRONMENTAL STUDIES	Lecture	Practical	Credit
FES10	ENVIRONMENTAL STUDIES	2	0	2

- 1. Explain the various natural resources and the impact of man-made fertilizers on the environment.
- 2. Describe the Ecosystem, Biodiversity and its Conservation.
- 3. Explain the Environmental Pollution and Management
- 4. Analyze the Social Issues concerning Human Population such as Environmental ethics, health and the role of IT on the environment and human health
- 5. Study a simple local ecosystem and prepare a FIELD WORK Report.

SEM II	LANGUAGE	Lecture	Practical	Credit
FLT20	TAMIL II	6	0	4

பயன் :

 மாணவர்கள் வாழ்க்கையில் அறநெறியுடன் வாழ்வதற்கும் மனதைஒருமுகபடுத்துவதற்கும் பக்தி இலக்கியங்களும் சிற்றிலக்கியங்களும் மாணவர்களுக்குபயன்படுகிறது.

2. பக்தி இலக்கியத்தின் வாயிலாகபுராணங்களின் முக்கியத்துவத்தையும் தெய்வங்களின் பெருமைகளையும் மாணவர்கள் அறிந்துக்கொள்கிறார்கள்.

3. கடவுளர்களையும் அரசர்களையும் பேரரிலக்கியங்கள் பேசியகாலங்களில் சிற்றிலக்கியங்கள் எளியமக்களின் வாழ்க்கைமுறையைபற்றிபேசுகிறதுஎன்பதைமாணவர்கள் அறிந்துக்கொள்கிறார்கள்.

 மாணவர்கள் வாழ்க்கையில் அறம்,ஒழுக்கம் சார்ந்தசெயல்பாடுகளில் தங்களை இணைத்துக்கொள்வதற்குபக்திமார்க்கம் துணைப் புரிகின்றத.

5. மாணவர்கள் நாயன்மார்களைகற்பதினால்

SEM II	GENERAL ENGLISH	Lecture	Practical	Credit
FLE20	COMMUNICATIVE ENGLISH II	6	0	4

- CO 1 The students get to learn more about various ways of using LSRW
- CO 2 Able to understand the proper usage of a language
- CO 3 Will build up interpersonal communication by reinforcing basic of pronunciation
- CO 4 Improve conversational skills
- CO 5 Enable to familiar with the sounds of the English vocabulary, grammer

SEM II	GENERAL ENGLISH	Lecture	Practical	Credit
FPE20C	PROFESSIONAL ENGLISH II	6	0	3

Course Outcomes:

CO1 - Recognize their own ability in using the language for speaking with confidence in an intelligible and acceptable manner

- CO 2 Understand the importance of reading for life
- CO 3 Read independently unfamiliar texts with comprehension
- CO 4 Understand the importance of writing in academic life

Write simple sentences without committing error of spelling or grammar

SEM II	CORE THEORY	Lecture	Practical	Credit
FCA21	C++ AND DATA STRUCTURES	5	0	6

- 1. The Student will be able to understand the concepts of object oriented programming, apply structure and inline functions.
- 2. The Student will be able to understand the concepts of the types of inheritances and applying various levels of Inheritance for real time problems
- 3. Apply the OOPs concepts class and object. Understand Explain the file concept and exception handlings in C++
- 4. The Student will be able to understand the concepts of Stacks and Queue using array and pointers.
- 5. The Student will be able to understand the concepts of Recursion, Binary Search Tree and graphs.
- 6. The Student will be able to understand the concepts of Sorting and Searching Algorithms

SEM II	VALUE EDUCATION	Lecture	Practical	Credit
FGA20	VALUE EDUCATION	2	0	2

- 1. Appreciate human values and gain self-esteem
- 2. Realize the importance of family and its members particularly women in the society
- 3. Interpret the ethical values in the context of profession, media, family and personal life.
- 4. Recognize the values of the society and its impact
- 5. Formulate the ethical system at the international level and modern trends.

SEM II	SOFT SKILLS	Lecture	Practical	Credit
FSS20	SOLT SKILLS	2	0	1
	SUFI SKILLS			

- 1. Demonstrate the skills for listening, writing, reading and writing
- 2. Read and respond to instruction
- 3. Seek and respond to information in day to day life
- 4. Correct grammatical and spelling errors
- 5. Actively engage in formal, in-formal and non-verbal communication

SEM II	CORE PRACTICAL	Lecture	Practical	Credit
FPCA26	C++ AND DATA STRUCTURES LAB	0	3	2

- 1. Understand the Creating and Deleting the Objects with the Concepts of Constructors and Destructors.
- 2. Demonstrate the Polymorphism Concepts and Operator Overloading.
- 3. Understand basic Data Structures such as Arrays, Linked Lists, Stacks, Queues, Doubly Linked List and Infix to Postfix Conversion.
- 4. Apply Algorithms for solving problems like Sorting and Searching.
- 5. Apply Algorithms and use Graphs and Trees as tools to visualize and simplify Problems

SEM II	ALLIED I	Lecture	Practical	Credit
FAMA25B	MATHEMATICAL FOUNDATIONS II	7	0	5

Course Outcomes:

1. After completion of unit 1 the student can able to understand the basic concept of Matrices.

2. After completion of unit 2 the student can able to understand the basic concept of Matrices

3. After completion of unit 3 the student can able to understand the basic concept of Integration

4. After completion of unit 4 the student can able to understand the basic properties of definite integrals

5. After completion of unit 5 the student can able to understand the basic concept of analytical geometry of three dimension

SEM III	LANGUAGE	Lecture	Practical	Credit
FLT30	TAMIL-III	2	0	4

பயன் :

 உலகப்பொதுமறை திருக்குறளை ஆர்வமுடன் கற்றுப் பயன் பெறலாம்.

2. சிலப்பதிகாரத்தின் பெருமையை அறிந்து கொள்ளலாம்.

 காப ;பியங்களின் அமைப்பையும், சிறப்பையும ; ஆர்வமுடன் படிக்கலாம்.

4. இஸ்லாமிய இலக ;கியங்கள், கிருத ;துவ இலக ;கியங்கள் செய ;த தமிழுக்கு செய ;த

தொண ;டை அறிதல்.

5. மொழித்திறனை வளர ;த்துக் கொள்ளுதல்.

SEM III	ENGLISH	Lecture	Practical	Credit
FLE30	ENGLISH-III	6	0	4

Course Outcomes:

1. Understand the narrative technique present in the essay

- 2. Learn new words and phrases
- 3. Comprehend the humor and irony implied in the text

4. Learn the philosophy of life that everybody has his own time to

succeed in life.

SEM III	CORE THEORY	Lecture	Practical	Credit
FCA31	JAVA PROGRAMMING	5	0	4

Course Outcome:

1. Describe Object oriented programming concepts.

- 2. Write Java Programs using Arrays, Inheritance, Interface and Packages based on requirements.
- 3. Use String handling, exception handling and Multithreading concepts in Java programs
- 4. Create a simple application with the use of AWT controls and GUI Tools.
- 5. Develop a JDBC enabled Java Application.

SEM III	NMD	Lecture	Practical	Credit
FSCA34	FUNDAMENTALS OF CODING AND CLOUD	2	0	2

COURSE OUTCOMES:

- 1. Gain a strong command over Python programming language, including its syntax, data types, and control flow, to develop robust and efficient code.
- 2. Understand and apply object-oriented programming principles, such as encapsulation, inheritance, and polymorphism, to design and implement modular and reusable code.
- 3. Develop skills in manipulating data structures like arrays, lists, and dictionaries, and implement common algorithms such as searching and sorting for efficient data processing.
- 4. Enhance problem-solving abilities by applying quantitative aptitude, and algorithmic thinking to tackle complex coding challenges and develop optimal solutions.
- 5. Prepare for coding interviews by gaining exposure to a variety of problem-solving scenarios, practicing coding techniques, and developing effective communication skills to articulate programming concepts and solutions.

SEM III	CORE PRACTICAL	Lecture	Practical	Credit
FPCA36	JAVA PROGRAMMING LAB	0	4	3

- 1. CO1. After studying unit-1, the student will be able to know about the working of objectoriented concepts in java.
- 2. CO2. After studying unit-2, the student will be able to practically know about primitive data types and operators.

- 3. CO3. After studying unit-3, the student will be able to practically work with arrays, control structures and handling exceptions.
- 4. CO4. After studying unit-4, the student will be able to practically work with files and packages.
- 5. CO5. After studied unit-5, the student will be able to practically know about Applets and GUI concepts

SEM III	ALLIED II	Lecture	Practical	Credit
FACM15C	FINANCIAL ACCOUNTING I	7	0	3

COURSE OUTCOMES:

- 1. After studying unit-1, to introduce the basic concepts and conventions to the students, this would help in the development of accounting knowledge.
- 2. After studying unit-2, to understand the concept of the Double entry system this helps in preparation of various books of accounts.
- 3. After studying unit-3, to develop the capability of students to prepare the Final Accounts of a Small Business Concern.
- 4. After studying unit 4, To introduce the concept of Single entry system of Accounting which helps them to prepare the accounts from incomplete records.
- 5. After studying unit 4, To enhance the Accounting Knowledge by introducing the practical uses of Average Due Date and Bank Reconciliation Statement.

SEM III	NME	Lecture	Practical	Credit
FNEN34	LANGUAGE SKILLS FOR COMMUNICATION-I	2	0	2

COURSE OUTCOMES:

UNIT - I

- 1. Students will be able to know how to behave while meeting people.
- 2. Students will be able to understand the ways of exchanging greetings.
- 3. Students will be able to introduce them to a group of people.

4. Students will be able to understand how to introduce others in any situation.

5. Students will be able to understand how to give personal information in a coherent way.

UNIT - II

1. Students will be able to know how to converse over the phone.

2. Students will be able to know how to enquire over phone in formal situation

3. Students will be able to know how to deal with wrong numbers on the telephone.

4. Students will be able to know how to take and leave message after a telephonic

5. Students will be able to develop the skill of answering over the phone.

SEM IV	LANGUAGE	Lecture	Practical	Credit
FLT40	TAMIL-IV	6	0	4

பயன் :

1. முச்சங்கம் பற்றிய செய்திகளை தெரிந்து கொள்ளுதல்.

2. தமிழர்களின் ஒழுக்கங்கலான காதல், வீரம் ; பற்றி அறிந்து பயன ;பெறலாம்.

3. சங்க கால வள்ளல்களின் சிறப்பினை அறிந்து கொள்ளலாம்.

4. ஆற்றுப்படை இலக்கியங்கள் பற்றிய புரிதலை பெறலாம்.

5. இலக்கிய வரலாற்றை அறிந்து கொள்ளுதல் மூலம் அரசின் போட்டித் தேர்வுகளில் வெற்றி பெறலாம்.

SEM IV	GENERAL ENGLISH	Lecture	Practical	Credit
FLE40	ENGLISH-IV	6	0	4

UNIT -1 POETRY

Students are able to

- 1 Understand and appreciate the style of Leacock
- 2 Enjoy the humour and wit presented in the prescribed text
- 3 Comprehend the philosophy of Swami Vivekananda
- 4 Learn new words and phrases
- 5 Understand the moral values and practise in personal life

UNIT -2 POETRY

Course Outcome:

Students are able to

- 1. Grasp the lyrical beauty of the poem of Tagore
- 2. Identify the mysticism present in Tagore poem
- 3. Understand the patriotic values and sense of integration Grasp the lyrical
- beauty of the poem of Robert Frost
- 4. Identify the rhythm present in Frost poetry and understand its
- philosophical meaning
- 5. Realize how the nature is being depleted
- 6. Understand the cyclic nature of life

UNIT-3 SHORT STORY

Course Outcome:

Students are able to

- 1. Appreciate the value of true love
- 2. Learn the narrative style
- 3. Assess the flow of language
- 4. Enjoy the twist of the story
- 5. Enjoy the aesthetic sense of the story and learn to appreciate the imaginary world.

UNIT -4 ONE ACT PLAY

Course Outcome:

Students are able to

- 1. Appreciate the sense of humour present in the play
- 2. Understand the nuances of dialogue and structure of sentences
- 3. Learn new expression related to the situations
- 4. Study the stage directions and background
- 5. Analyse and critically evaluate the play as a whole and try to enact on

stage

UNIT-5: I- GRAMMAR

Course Outcome:

Students are able

- 1. Learn the basics of grammar
- 2. To learn verb and adverb and know to differentiate them
- 3. To write reports
- 4. To comprehend a passage and answer the specific questions

SEM IV	CORE THEORY	Lecture	Practical	Credit
FCA41	RELATIONAL DATABASE MANAGEMENT SYSTEM	5	0	4

- 1. Describe the database architecture and its applications Sketch the ER diagram for real world applications Uses various ER diagrams for a similar concept from various sources.
- 2. Discuss about relational algebra and calculus Construct various queries in SQL and PL/SQL Compiles various queries in SQL, Relational Calculus and Algebra.

- 3. Describe the various normalization forms Apply the normalization concepts for a table of data Practices a table and implement the normalization concepts.
- 4. Explain the storage and accessing of data.
- 5. Illustrate the query processing in database management. Define the concurrency control and deadlock concept

SEM IV	CORE PRACTICAL	Lecture	Practical	Credit
FPCA46	RDBMS LAB	0	4	3

- 1. Design and Implement a database schema for a given problem domain.
- 2. Populate and Query a database using SQL, DDL/DML Commands.
- 3. Build well formed in String Date/Aggregate Functions.
- 4. Design and Implement a database query using Joins, Sub-Queries and Set Operations.
- 5. Program in SQL including Objects (Functions, Procedures, Triggers)

SEM IV	ALLIED II	Lecture	Practical	Credit
FACM25C	FINANCIAL ACCOUNTING II	7	0	5

Course Outcomes:

Unit1

- After studied unit-1, the student will be able to
- Understand the basic fundamentals of branch accounting

Unit2

- After studied unit-2, the student will be able to
- Understand the basic fundamentals of Departmental accounting

Unit3

- After studied unit-3, the student will be able to
- Understand the Hire Purchase System of accounting

Unit4

- After studied unit-4, the student will be able to
- Prepare the accounts partnership in fundamentals and reconstitution of partnership.

Unit 5

- After studied unit-5, the student will be able to
- Understand the accounts of Dissolution of partnership firms.

SEM IV	NME	Lecture	Practical	Credit
FNEN45	LANGUAGE SKILLS FOR COMMUNICATION-II	2	0	2

Course Outcome:

- 1. To improve the students ability of speaking skills.
- 2. To provide training in developing interpersonal skills.
- 3. To develop communicative skills
- 4. To make students confident in dealing with communicative skills
- 5. To facilitate students practical and social knowledge through conversations

SEM V	CORE THEORY	Lecture	Practical	Credit
FCA51	MOBILE APPLICATION DEVELOPMENT	6	0	4

Course Outcomes:

1. After studying unit-1, the student will be able to understand the basics of smartphones and android platforms.

2. After studying unit-2, the student will be able to understand the basic concepts of user interface related to app development.

3. After studying unit-3, the student will be able to understand the importance of data persistence in a mobile environment.

4. After studying unit-4, the student will be able to understand the various services and network facilities provided by android platform.

5. After studying unit-5, the student will be able to understand the various apps deployed and developed on a mobile platform.

SEM V	CORE THEORY	Lecture	Practical	Credit
FCA52	OPERATING SYSTEM	6	0	4

1. After studying unit-1, the student will be able to understand the basics of smartphones and android platforms.

2. After studying unit-2, the student will be able to understand the basic concepts of user interface related to app development.

3. After studying unit-3, the student will be able to understand the importance of data persistence in a mobile environment.

4. After studying unit-4, the student will be able to understand the various services and network facilities provided by android platform.

5. After studying unit-5, the student will be able to understand the various apps deployed and developed on a mobile platform.

SEM V	CORE THEORY	Lecture	Practical	Credit
FCA53	DESIGN AND ANALYSIS OF ALGORITHMS	4	0	2

Course Outcomes:

1. After studying unit-1, the student will be able to understand various algorithm design techniques.

2. After studying unit-2, the student will be able to understand the basis of efficient algorithms for all kinds of problems.

3. After studying unit-3, the student will be able to use a simple approach which tries to find the best solution at every step.

4. After studying unit-4, the student will be able to provide a general insight into the dynamic programming approach.

5. After studying unit-5, the student will be able to understand the algorithm design paradigm for discrete and combinatorial optimization problems.

SEM V	CORE PRACTICAL	Lecture	Practical	Credit
FPCA56	MOBILE APPLICATION DEVELOPMENT LAB	0	4	3

- 1. Able to understand about the basic developments of android applications
- 2. Able to understand the usage of the controls in android application.
- 3. Able to understand the advanced controls that are used in android applications.
- 4. Able to understand how the alerts are worked in application.
- 5. Able to understand the concept of connecting a database into the application.

SEM V	CORE PRACTICAL	Lecture	Practical	Credit
FPCA57	OPERATING SYSTEM LAB	0	4	3

Course Outcomes:

- 1. Able to understand the basics of UNIX commands and shell programming.
- 2. Able to understand the programming knowledge of scheduling algorithms.
- 3. Able to understand the working of semaphores in an operating system.
- 4. Able to understand how to code various algorithms used in operating systems.

5. Able to understand how to code and the working procedure of file management concepts in operating systems.

SEM V	ELECTIVE I	Lecture	Practical	Credit
FECA54A	DATA MINING	3	0	3

1. After studying unit-1, the student will be able to understand the basics of data mining and data.

2. After studied unit-2, the student will be able to understand about the methods of Data Warehousing

3. After studied unit-3, the student will be able to understand about the techniques of Data Mining

4. After studied unit-4, the student will be able to understand about the importance of Cluster and outlier detection

5. After studied unit-5, the student will be able to improve the student's knowledge with recent trends and tools

SEM V	ELECTIVE II	Lecture	Practical	Credit
FECA54B	INFORMATION SECURITY	3	0	3

Course Outcomes:

1. After studied unit-1, the student will be able to understand the basic concepts of Information Security

2. After studied unit-2, the student will be able to understand the legal, ethical and professional issues in Information Security

3. After studied unit-3, the student will be able to know about risk management

4. After studied unit-4, the student will be able to understand the technological aspects of Information Security

5. After studied unit-5, the student will be able to understand the concepts of Cryptography and Hacking methods

SEM V	ELECTIVE III	Lecture	Practical	Credit
FECA54C	SOFTWARE TESTING	3	0	3

1. After studied unit-1, the student will be able to understand the concept of software testing, and software quality

2. After studied unit-2, the student will be able to learn to inspect and detect errors by going through each and every code segment

3. After studied unit-3, the student will be able to gain knowledge of various functional and structural testing techniques

4. After studied unit-4, the student will be able to understand basic concept of Software Management tools and object oriented testing

5. After studied unit-5, the student will be able to understand basic concept of Software quality and software quality assurance

SEM V	NMD	Lecture	Practical	Credit
FSAM50	FOUNDATIONS OF AI&ML	4	2	2

COURSE OUTCOMES:

CO1: Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.

CO2: Comprehend the applications of AI in in business and real world use case scenarios

CO3: Comprehend the OpenAI and generative models with their applications

CO4: Gain awareness of usage of AI in computer vision related applications

SEM VI	CORE THEORY	Lecture	Practical	Credit
FCA61	OPEN SOURCE SOFTWARE	4	0	4

1. After studying unit-1, the student will be able to understand the concept of HTML, HTML5 and CSS.

2. After studied unit-2, the student will be able to learn to inspect and detect errors by going through each and

every code segment.

3. After studying unit-3, the student will be able to understand the basic concept of Java Script and MySQL.

4. After studied unit-4, the student will be able to understand basic concept of PHP

5. After studied unit-5, the student will be able to understand basic concept of PERL

SEM VI	CORE THEORY	Lecture	Practical	Credit
FCA62	PYTHON PROGRAMMING	4	0	4

Course Outcomes:

1. After studied unit-1, the student will be able to understand the basic building blocks for creating PYTHON

programming in detail.

2. After studied unit-2, the student will be able to understand the control statements and basic methods used in

PYTHON programming

3. After studying unit-3, the student will be able to understand the basic built- in functions.

4. After studied unit-4, the student will be able to understand some advanced methods to use in PYTHON

5. After studied unit-5, the student will be able to understand the concept of objects used in PYTHON

SEM VI	ELECTIVE II	Lecture	Practical	Credit
FECA63A	BIG DATA ANALYTICS	3	0	3

1. After studying unit-1, the student will be able to understand the key issues in big data management.

2. After studying unit-2, the student will be able to outline big data planning, processing.

3. After studying unit-3, the student will be able to Acquire fundamental enabling techniques and be scalable.

4. After studying unit-4, the student will be able to examine various big data tools and techniques.

5. After studying unit-5, the student will be able to achieve adequate perspectives of Big Data Analytics in various Applications like recommender systems, Social Media Applications, etc.

SEM VI	ELECTIVE II	Lecture	Practical	Credit
FECA63B	CRYPTOGRAPHY	3	0	3

- 1. After studying unit-1, the student will be able to know the security attacks and services.
- 2. After studying unit-2, the student will be able to understand the concept of Encryption Standards.
- 3. After studying unit-3, the student will be able to understand public key cryptographic algorithms.
- 4. After studying unit-4, the student will be able to learn the concept of hash functions.
- 5. After studying unit-5, the student will be able to understand Email security.

SEM VI	ELECTIVE II	Lecture	Practical	Credit
FECA63C	DIGITAL IMAGE PROCESSING	3	0	3

1. After studying unit-1, the student will be able to understand the concepts like MatLab, DIP, electromagnetic spectrum, etc.

2. After studying unit-2, the student will be able to analyze smoothing and sharpening techniques.

3. After studying unit-3, the student will be able to know about image filters.

4. After studying unit-4, the student will be able to gain knowledge about compression techniques.

5. After studying unit-5, the student will be able to know about image representation.

SEM VI	ELECTIVE III	Lecture	Practical	Credit
FECA64A	ARTIFICIAL INTELLIGENCE	3	0	3

Course Outcomes:

1. After studied unit-1, the student will be able to recall the fundamentals of artificial intelligence

2. After studied unit-2, the student will be able to understand the techniques used for AI

3. After studying unit-3, the student will be able to know about knowledge representation.

4. After studying unit-4, the student will be able to gain knowledge about fuzzy logic.

5. After studied unit-5, the student will be able to evaluate the design of new artificial intelligence and machine learning applications

SEM VI	ELECTIVE III	Lecture	Practical	Credit
FECA64B	SYSTEM SOFTWARE	3	0	3

Course Outcomes:

1. After studying unit-1, the student will be able to analyze CISC and RISC machines.

2. After studying unit-2, the student will be able to know how assemblers are working.

3. After studying unit-3, the student will be able to distinguish Linker and Loader.

4. After studying unit-4, the student will be able to learn macro processor.

5. After studying unit-5, the student will be able to understand the functions of compilers.

SEM VI	ELECTIVE III	Lecture	Practical	Credit
FECA64C	MOBILE COMPUTING	3	0	3

Course Outcomes:

1. After studying unit-1, the student will be able to understand basic concepts of mobile computing.

2. After studying unit-2, the student will be able to learn the basics of mobile telecommunication systems.

3. After studying unit-3, the student will be able to comprehend wireless LAN and cellular systems.

4. After studying unit-4, the student will be able to understand protocols at the network and transport layer.

5. After studying unit-5, the student will be able to learn development of applications in mobile computing platforms.

SEM VI	CORE PRACTICAL	Lecture	Practical	Credit
FPCA66	PYTHON PROGRAMMING LAB	0	4	2

- 1. After studying unit-1, the student will be able to write a program using operators.
- 2. After studying unit-2, the student will be able to develop a program using loops.
- 3. After studying unit-3, the student will be able to implement a program using Arrays.
- 4. After studying unit-4, the student will be able to implement the concept of String functions.
- 5. After studying unit-5, the student will be able to build application with basic expressions

SEM VI	CORE PRACTICAL	Lecture	Practical	Credit
FPCA67	OPEN SOURCE SOFTWARE LAB	0	4	2

- 1. After studying unit-1, the student will be able to design static web pages.
- 2. After studying unit-2, the student will be able to link common style to the web pages using CSS.
- 3. After studying unit-3, the student will be able to validate form controls using javascript.

4. After studying unit-4, the student will be able to design dynamic web pages using PHP.

5. After studying unit-5, the student will be able to develop a PHP program with MYSQL database connection.

SEM - ALL	VALUE ADDED COURSES	Seminar	Workshop	Test
IL01-IL04	INFORMATION LITERACY	1	1	1

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally