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

FLT10	TAMIL I
SEM I	

பயன் :

1.மோணவர்கள் கவிததகற்பதின் வோயிலோகஅவர்கள் கவிததஎழுதகற்றுக்சகோள்கிறோர்கள்

2.உதர தடகற்பதின் வோயிலோகவோசிக்கக் கற்றுக்சகோள்கிறோர்கள்

3. ோடகம் வோசிப்பதினோல் மோணவர்கள் மனம் சமோழிசமய் மூலமோகதங்கள் திறன் கதளசவளிப்படுகின் றனர்

4.சிறுகததபடிப்பதினோல் மோணவர்கள் வோசிக்கும் பழக்கத்திதனசபறுகின் றோர்கள்

5.சமோழித்திறன் பயிற்சிசபறுவதின் மூலமோகமோணவர்கள் சமோழிதயபிதழயின் றிநபெவும் எழுதவும் கற்றுக்சகோள்கிறோர்கள்.

FLE 10	COMMUNICATIVE ENGLISH I
SEM 1	

Course Outcome:

1 – The students get to learn more about various ways of using LSRW

2 – Able to understand the proper usage of a language

3 – Will build up interpersonal communication by reinforcing basic of pronunciation

4 – Improve conversational skills

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

FLE 10	PROFESSIONAL ENGLISH I
SEM I	

Course Outcomes:

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.

FCA11	PROGRAMMING IN C
SEM I	

Course Outcomes:

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

FAMA15B	MATHEMATICAL FOUNDATIONS I
SEM I	

Course Outcomes:

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.

FPCA13	C PROGRAMMING LAB
SEM I	

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 implement arrays, functions and pointers.

FES10	ENVIRONMENTAL STUDIES
SEM I	

Course Outcome:

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

FLT 20	TAMIL II
SEM II	

பயன் :

1. மோணவர்கள் வோழ்க்ககயில் அறந றியுடன் வோழ்வதற்கும் மனகதஒருமுகபடுத்துவதற்கும் பக்தி இலக்கியங்களும் சிற்றிலக்கியங்களும் மோணவர்களுக்குபயன் படுகிறது.
2. பக்தி இலக்கியத்தின் வோயிலோகபுரோணங்களின் முக்கியத்துவத்கதயும் நதய்வங்களின் நபருகமகளயும் மோணவர்கள் அறி ்துக்நகோள்கிறோர்கள்.
3. கடவுளர்களயும் அரசர்களயும் நபரரிலக்கியங்கள் நபசியகோலங்களில் சிற்றிலக்கியங்கள் எளியமக்களின் வோழ்க்ககமுகறகயபற்றிநபசுகிறதுஎன் பகதமோணவர்கள் அறி ்துக்நகோள்கிறோர்கள்.
4. மோணவர்கள் வோழ்க்ககயில் அறம்,ஒழுக்கம் சோர் ்தநசயல்போடுகளில் தங்ககள இகணத்துக்நகோள்வதற்குபக்திமோர்க்கம் துகணப்புரிகின் றத.
5. மோணவர்கள் ோயன் மோர்ககளகற்பதினோல் சிவனுகடயநபருகமகளஅறி ்துக்நகோள்கின் றனர்.
6. மோணவர்கள் ஆழ்வோர்ககளபடிப்பதனோல் திருமோல் நபருகமகளநதரி ்துக்நகோள்கின் றனர்.
7. மோணவர்கள் சிற்றிலக்கியங்ககளவோசிப்பதினோல் 96 வகயோனசிற்றிலக்கியங்ககளப் பற்றிபுரி ்துக்நகோள்கின் றனர்.
8. நமோழித்திறன் பயிற்சிநபறுவதின் வோயிலோகமோணவர்கள் நபோதுக்கட்டுகரகள் எழுதுவதற்குப்பயிற்சிப்நபறுகிறோர்கள்

FLE 20	COMMUNICATIVE ENGLISH II
SEM II	

Course Outcome:

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

FPE20C	PROFESSIONAL ENGLISH II
SEM II	

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

FCA21	C++ AND DATA STRUCTURES
SEM II	

Course Outcomes:

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		2	0	2

Course Outcome:

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	SOFT SKILLS	2	0	1

Course Outcome:

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

Course Outcomes:

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 :

1. உலகப்தபோதுமளற திருக்குறளை ஆர்வமுைன் கற்றுப் பயன் தபறலோம்.
2. சிலப்பதிகோரத்தின் தபருளமளய அறிந்து தகோள்ைலோம்.
3. கோப ;பியங்கைின் அளமப்ளபயும், சிறப்ளபயும ; ஆர்வமுைன் படிக்கலோம்.
4. இஸ்லோமிய இ ல கஇகியங்கள், கிருத ;துவ இ ல கஇகியங்கள் த ச யஇத தமிழுக்கு

த ச யஇத ததோண ;ளை அறிதல்.

5. தமோழித்திறளன வைர ;த்துக் தகோள்ளுதல்.

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.

5. Understand tolerance is the best policy

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

Course Outcomes:

1. CO1. After studying unit-1, the student will be able to know about the working of object- oriented 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 IV	LANGUAGE	Lecture	Practical	Credit
FLT40	TAMIL-IV	6	0	4

1. நூல்கள்.

பயன் :

1. முச்சங்கம் பற்றிய தசய்திகளை ததோிந்து தகோள்ளுதல்.

2. தமிழர்கின் ஒழுக்கங்கலோன கோதல், வீரம் ; பற்றி அறிந்து ப ய ன;தபறலோம்.

3. சங்க கோல வள்ைல்கின் சிறப்பிளன அறிந்து தகோள்ைலோம்.

4. ஆற்றுப்பளை இலக்கியங்கள் பற்றிய புோிதளல தபறலோம்.

5. இலக்கிய வரலோற்ளற அறிந்து தகோள்ளுதல் மூலம் அரசின் நபோட்டித் நதர்வுகில் தவற்றி தபறலோம்.

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

UNIT – 1 PROSE

Course Outcome:

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**

Course Outcomes:

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

Course Outcomes:

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.

Program in SQL including Objects (Functions, Procedures, Triggers

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

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
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

Course Outcomes:

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

Course Outcomes:

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

Course Outcomes:

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

Course Outcomes:

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

Course Outcomes:

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.

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

Course Outcomes:

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

Course Outcomes:

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 – III, IV, V,VI	VALUE ADDED COURSES	LECTURE	TEST
	Cloud computing	1	1

1. **Course Outcomes**

1. Afterstudiedunit1,thestudentwillbeabletorecallthefundamentalconceptsofcloudcomputingtechn ology.

2. Afterstudiedunit-

2,thestudentwillbeabletocompareandinterpretthevariouscloudservices.

3.Afterstudiedunit3,thestudentwillbeabletoanalyzecloudarchitectureandexaminetheapplications.

4. Afterstudiedunit-4,thestudentwillbeabletounderstandnetworking forcloudcomputing.

5. Afterstudiedunit5,thestudentwillbeabletoassessandelaboratethecloudsecurityconsiderationsand models.