Computer Science and Engineering
(Cyber Security)

R20 Regulations
COURSE STRUCTURE

I Year B. Tech-II
Semester

S No	Subject Code	Subject	L	Т	Р	С	Max. Marks	
							INT	EXT
1	MR20-1BS0102	Mathematics – II	3	0	0	3	40	60
2	MR20-1ES0101	Basic Electrical and Electronics Engineering	3	0	0	3	40	60
3	MR20-1ES0103	Design Thinking	2	0	2	3	40	60
4	MR20-1ES0105	Python Programming & Data Structures	3	0	0	3	40	60
5	MR20-1BM0161	Financial Institutions, Markets and Services	3	0	0	3	40	60
6	MR20-1ES0131	Basic Electrical and Electronics Engineering Lab	0	0	3	1.5	40	60
7	MR20-1ES0133	Python Programming & Data Structures Lab	0	0	3	1.5	40	60
8	MR20-1HS0131	English Language Communication Skills Lab	0	0	2	1	40	60
9	MR20-1HS0132	Foreign Language – French	1	1	0	1	40	60
		TOTAL	15	1	10	20	360	540

I Year B. Tech-II Semester

L/T/P/C 3/-/-/3

(MR20-1BS0102) MATHEMATICS-II

COURSE OBJECTIVES:

- 1. Evaluation of multiple integrals.
- 2. In many engineering fields the physical quantities involved are vector valued functions. Hence the vector calculus aims at basic properties of vector-valued functions and their applications to line, surface and volume integrals.
- 3. The properties of Laplace Transform, Inverse Laplace Transform and Convolution theorem.

UNIT-I

Integral Calculus-I

Convergence of improper integrals; Beta and Gamma integrals; Differentiation under integral sign; Double integrals (Cartesian and Polar coordinates), Change of order of integration (only Cartesian form), Change of Variables (Cartesian to Polar), Applications: Areas (by double integrals).

UNIT-II

Integral Calculus-II

Triple integrals - computation of surface areas and volumes; change of variables (Cartesian to Spherical and Cylindrical polar coordinates), Applications: Volumes (triple integrals).

UNIT-III

Vector Differentiation

Scalar and vector fields, Vector differentiation, Directional derivative, Gradient of a scalar field, Divergence and Curl of a vector field, Solenoidal and Irrotational vectors, Laplacian.

UNIT-IV

Vector Integration

Line, Surface and Volume integrals, Green's theorem in a plane, Stoke's theorem, Gauss Divergence theorem (Statement & Verification).

UNIT-V

Laplace Transforms

Laplace Transforms, Laplace Transform of standard functions; first shifting theorem; Laplace transforms of functions when they are multiplied and divided by 't'. Laplace transforms of derivatives and integrals of function, Evaluation of integrals by Laplace transforms, Laplace transforms of unit step function, impulse function, periodic functions.

Inverse Laplace transform by different methods, convolution theorem (without Proof), Applications of Laplace transforms - Solving certain initial value problems.

TEXT BOOKS

- 1. Advanced Engineering Mathematics by Kreyszig, John Wiley & Sons.
- 2. Higher Engineering Mathematics by B.S. Grewal, Kanna Publishers.
- 3. Advanced Engineering Mathematics by RK Jain & SRK Iyengar, Narosa Publishers.

REFERENCE BOOKS

- 1. Higher Engineering Mathematics by B.V. Ramana, Tata McGraw Hill.
- 2. Engineering Mathematics by N.P. Bali and Manish Goyal, Laxmi Publications.
- 3. Advanced Engineering Mathematics by Michael Greenberg, Pearson publishers.

Course Outcomes

After learning the concepts of this paper, the student will be able to

- 1. Analyze improper integrals.
- 2. Evaluate multiple integrals in various coordinate systems.
- 3. Apply the concepts of gradient, divergence and curl to formulate engineering problems.
- 4. Convert line integrals into surface integrals and surface integrals into volume integrals.
- 5. Apply Laplace transforms to solve physical problems arising in engineering.

I Year B. Tech-II Semester

L/T/P/C 3/-/-/3

(MR20-1ES0101)BASICELECTRICALANDELECTRONICSENGINEERING

COURSEOBJECTIVES

- 1. EmphasisonthebasicelementsinelectricalcircuitsandtheconceptsofDCcircuits.
- 2. Analysis of Circuits using Network Theorems.
- Construction, operational features of energy conversion devices i.e. DC and AC machines, transformers.
- Emphasisonbasicsofelectronics, semiconductor devices and their characteristics and operational feature sandtransistors – its characteristics and applications.
- 5. Tounderstandbasicnumbersystemscodesandlogicgates.

UNIT-I

ElectricalCircuits

Basicdefinitions, Types of elements, Ohm's Law, Series & Parallel Resistive networks, Kirchhoff's Laws and Star-delta and delta-startransformations.

Network Theorems: Superposition Theorem, The venin's Theorem and Norton's Theorem.

UNIT-II

DC Machines:

Dc Generator: Construction and Principle of operation, EMF equation, DC Motor:Principleofoperation,TorqueequationandSpeedcontrolofDCshuntmotor-Fluxandarmature voltagecontrolmethods.

UNIT-III

ACMachines

Construction and Principle of operation of single-

phase transformers, EMF equation. Construction and Principle of operation of induction motor, Applications. Construction and Principle of operation of alternators, Applications.

UNIT-IV

Electronic Devices and Circuits

P-N Junction diode and its characteristics, Zener diode and itscharacteristics. The Junction transistor, Transistor construction,Inputand Outputcharacteristics of transistor in CommonBase,Common Emitter,andCommoncollector configurations.BJT Specifications.

UNIT-V

Digital Electronics

Number Systems, Base Conversion Methods, Complements of Numbers, Codes - Binary Codes, Binary Coded Decimal, Unit Distance Code, Digital Logic Gates (AND, NAND, OR, NOR, EX-OR, EX-NOR).

TEXTBOOKS

- BasicElectricalEngineering,AbhijitChakrabarti,Sudiptanath,ChandramKumarChanda,Tata-McGraw-Hill.
- 2 Basicconcepts of Electrical Engineering, PSSubramanyam, BSPublications.
- 3. Electronic Devices and Circuits, S.Salivahanan, N.Suresh Kumar, A.Vallavaraj, Tata McGraw-Hillcompanies.
- 4. M.MorrisMano, Digital Design, 3rd Edition, Prentice HallofIndia Pvt. Ltd., 2003/Pearson Education (Singapo re) Pvt. Ltd., New Delhi, 2003.

REFERENCEBOOKS:

- 1. BasicElectricalEngineering, T.K. Nagasarkar and M.S. Sukhija, Oxford University Press.
- 2. BasicElectricalEngineeringbyD.P.Kothari,I.J.Nagrath,McGraw-Hill.
- 3. Millman's Electronic Devices and Circuits, J. Millman, C.C. Halkias, and Satyabrata Jit, Tata McGraw-Hill companies.

COURSEOUTCOMES

Aftergoingthroughthiscourse, the student gets at horough knowledge on

- 1. Basicconceptsofelectrical circuitsandnetworks.
- 2. SolvingtheElectricalcircuitsusingnetworktheorems.
- 3. Constructional Details and Principle of Operation of DCM achines and Transformers.
- 4. Differentsemiconductordevices, operation of diodes and transistors, their voltage-current characteristics.
- 5. Basicpostulates of Boolean algebra, logic gates and shows the correlation between Boolean expressions.

I Year B. Tech-II Semester

L/T/P/C 2/-/2/3

(MR20-1ES0103)DESIGN THINKING

COURSE OBJECTIVES:

- 1. To get an overview of the whole approach to design thinking
- 2. To learn 7 key habits of effective design thinkers.
- 3. To Learn Ideation, Storyboarding, & Prototyping.
- 4. To understand the importance of user research
- 5. To learn how to observe, reflect, & make.
- 6. To get an overview of the whole approach to design thinking.

UNIT-I

Introduction to design Thinking: characteristics of successful product development, product developmentprocess, identification of opportunities, product planning, Innovation in product development.

Case Study: See how design thinking is introduced in an organization, understand the transformation required, what outcomes are possible.

UNIT-II

Design thinking: Introduction, Principles, the process, Innovation in design thinking, benefits of Designthinking, designthinking and innovation, cases tudies.

Overview & 7 Key Habits: Get an overview of the whole approach to design thinking, understand the principles, loop, and keys, determine what is most important. 7 Key Habits: Learn 7 key habits of effective design thinkers, avoid common anti-patterns, optimize for success with these habits.

UNIT-III

The Loop & User Research: Understand the importance of iteration, learn how to observe, reflect, and make, get ready to drill down and do tomorrow. Understand the importance of user research, appreciate empathy through listening, learn key methods of user research.

UNIT IV

Make & User Feedback: Understand how make fits into the loop, learn how to leverage observe information; learn Ideation, Storyboarding and Prototyping. User Feedback: Understand user feedback and the loop, learn the different types of user feedback, learn how to carry out getting feedback.

UNIT V

Activity: Ideation: Learn a technique for generating big ideas, practice ideation and prioritization, select best ideas to flesh out further. Storyboarding: learn to flesh out ideas with storyboarding, practice communicating an impactful story, collaboratively consolidate storyboards. Prototyping: Learn a quick and simple way of prototyping, build your storyboard and hill into a prototype, and practice collaboratively building a prototype.

TEXT BOOKS

- 1. Basic Design Thinking–Gavin Ambrose, Paul Harris, AVA Publishing SA, Switzerland.
- 2. ChristophMeinelandLarryLeifer, "DesignThinking", Springer, 2011
- $3. \quad Aders Riise Maehlum, "Extending the TILES Toolkit" from Ideation to Prototyping.\\$

REFERENCE BOOKS:

- 1. Design thinking for strategic innovation by IDRIS MOOTEE, Wiley publications.
- 2. Design thinking: Business innovation Maurício Vianna, Ysmar Vianna, Brenda Lucena and Beatriz Russo, MJV Technologies and innovation press.

COURSE OUTCOMES

At Completion of this course, students would be able to -

- 1. Understand what came before design thinking and how it built upon previous approaches.
- 2. Learn 7 key habits of effective design thinkers
- 3. Understand the importance of iteration
- 4. Understand user feedback and the loop
- 5. Understand the domains that are applicable.

I Year B. Tech-II Semester

L/T/P/C 3/-/-/3

(MR20-1ES0105) PYTHON PROGRAMMING & DATA STRUCTURES

COURSE OBJECTIVES:

- 1. To read and write simple Python programs.
- 2. To develop Python programs with conditionals and loops.
- 3. To define Python functions and call them.
- 4. To use Python data structures lists, tuples, dictionaries.
- 5. To do Exception handling in Python.
- 6. To implement object-oriented concepts in Python.

UNITI

INTRODUCTION TO PYTHON: Features of Python, Execution of a Python Program, Viewing the byte code, Flavors of Python, Python Virtual Machine, Comparisons between C and Python, installing python for windows, numpy, pandas and Matplotlib, executing a python using command Line Window and Python's IDLE.

DATATYPES IN PYTHON: Comments in Python, Docstrings, Built-in data types: None, Numeric and bool Data type, Sequences in python: str, bytes, byte array data types, list, tuple, dictionaries, user-defined datatypes, constants in python, identifiers and reserved words, naming conventions in python.

UNIT II

VARIABLES AND OPERATORS: Understanding Python variables, multiple variable declarations, Operators in Python: Arithmetic operators, Assignment operators, Relational Operators, Logical operators, Boolean Operators, Bitwise operators, Membership operators, Identity operators, Operator Precedence and Associativity, Output statements, Input Statements and Command Line Arguments.

CONTROL STATEMENTS: Indentation, The if Statement, if...else, if ... elif ... else statement, while loop, for loop, Infinite loop, Nested Loops, The else suite, break, continue, pass statement, assert and return statement

UNIT III

ARRAYS

Advantages of Arrays, Creating an Array, Importing the Array Module, Indexing and Slicing on Arrays, Types of arrays, working with arrays using numpy.

FUNCTIONS

Defining a Function, calling a function, Formal and Actual Arguments, Positional Arguments, keyword Arguments, Default Arguments, variable length arguments, local and global variables, Anonymous Functions or Lambdas

UNIT IV

DATA STRUCTURES IN PYTHON

Working with Linked Lists, Stacks and Queues, Searching Algorithms: linear search and binary search, Sorting Algorithms: Bubble Sort, Insertion Sort, Selection Sort and Merge Sort

UNIT V

GRAPHS & TREES

Graphs – Breadth First Search, Depth First Search. **Trees** - Binary search trees: find, insert, delete, Tree Traversal Techniques: Inorder, preorder, postorder.

TEXT BOOKS

- 1. R. Nageswara Rao, "Core Python Programming", dream tech
- 2. Data structures and algorithms in python by michael t. goodrich
- 3. Allen B. Downey, "Think Python: How to Think like a Computer Scientist", 2nd edition, Updated for Python 3, Shroff/O'Reilly Publishers, 2016.
- 4. Python Programming: A Modern Approach, Vamsi Kurama, Pearson
- 5. Data Structures and Algorithmic Thinking with Python by Narasimha Karumanchi

REFERENCE BOOKS:

- 1. Core Python Programming, W.Chun, Pearson.
- 2. Introduction to Python, Kenneth A. Lambert, Cengage
- 3. Learning Python, Mark Lutz, Orielly

COURSE OUTCOMES:

- 1. Read, write, execute by hand simple Python programs.
- 2. Structure simple Python programs for solving problems.
- 3. Decompose a Python program into functions.
- 4. Represent compound data using Python lists, tuples, and dictionaries.
- 5. Implement linked list, stacks, and queues using Python.

I Year B. Tech - II Semester

L/T/P/C 3/-/-/3

(MR20-1BM0161) FINANCIAL INSTITUTIONS, MARKETS AND SERVICES

COURSE OBJECTIVES

- 1. To expose students towards a clear understanding of Financial Markets in India, their operations and relevant development.
- 2. To lay foundation and equip them with the knowledge of Financial Services, related institutions and their functions.
- 3. Deep learning of the operations of financial markets, regulators and the stakeholders.

UNIT-I

Introduction to Financial System and Economic Development Indicators of Financial Development. Concepts related to Financial Markets and Institutions – Concept of Risk, Concept and types of returns and yield, Asset Pricing Models, Valuation of Assets

UNIT-II

Theories of Level and Structure of Interest Rates – Financial Regulations and Regulatory Institutions in India (RBI, SEBI, IRDA, PFRDA), Operating Procedures of Monetary Policy, corporate Governance and SEBI.

Commercial Banking, Role of Banks, Banks Financial Statements, Banks Computation, International Banking, NPA, Risk Management in Banking.

UNIT-III

Banking and Non-Banking Financial Institutions: The public and private sectors, structure, Other Bank capital and Banking Innovations. Important Financial Institutions – I (Provident Fund, Pension Fund, Insurance Companies)

Other Important Financial Institutions – II (Mutual Fund, Credit Rating Agencies, Merchant Bank, Venture Capital Funds)

UNIT-IV

Structure and Functions of Call Money Market, Government Securities Market, Treasury Bills Market, Commercial Bills Market, Commercial Paper and Certificates of Deposits. Securities Markets: Organization and Structure, Listing, Trading and Settlement, SEBI and Regulations of Primary and Secondary Markets -Bond Market – Bond Features, Bond Price Volatility, Government Security Market.

Classification of Stock Market and Securities – IPO, Stock Exchanges, Stock Market Indices, Market Micro-Structure in Stock Market.

UNIT-V

Derivatives Market – Types of Derivatives, Important Concepts used in Derivatives Market, Pricing of Futures, Options and Swaps.

Foreign Exchange Market- Foreign Exchange Market Structure, Risk Management in Foreign Exchange Market, Exchange Rate Determination, Foreign Capital – FDI & FII, Central Bank Intervention in Foreign Exchange Market.

REFERENCE BOOKS:

- 1. Clifford Gomez, Financial Markets Institutions and Financial Publications, PHI Publishers
- 2. Gordon and Natarajan,11th Edition, Financial Markets and Services, Himalaya Publishing House.
- 3. Frank.J.Fabozzi& Franco Modigliani, Foundations of Financial Markets and Institutions, 3/e, Pearson Education Asia, 2002(latest edition)
- 4. Bhole L M, "Financial Institutions and Services", Tata McGraw Hill Publications. 3rd Ed. 1999(latest edition only).
- 5. LM Bhole, Financial Institutions and Markets, TMH 5. Meir Kohn, Financial Institutions and Markets, Oxford.
- 6. Bhalla, V. K. (2004). Managing International Investment and Finance. New Delhi, Anmol.
- 7. Saunders, Anthony, Cornett, Marcia Millon (5th ed., 2005). Financial Institutions Management Tata McGraw Hill.
- 8. Bhall, L.M. (4th ed., 2004). Financial Institutes & Markets. Tata McGraw Hill.

COURSE OUTCOMES

Learning Objectives

- 1. Clear understanding of the operation of financial markets.
- 2. Indulgence in financial investments based on the knowledge gained on financial services.
- 3. Comprehend the various policy changes and economic news at national and international level.

I Year B. Tech - II Semester

L/T/P/C -/-/3/1.5

(MR20-1ES0131) BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LAB

COURSE OBJECTIVES:

- 1. Verify the basic electrical circuit laws and theorems.
- 2. Determine the characteristics of dc and ac machines.
- 3. Plot the V-I characteristics of PN junction Diode and its applications.
- 4. Plot the input and output characteristics of Transistor in CB and CE configurations.
- 5. Study and verify the logic gates.

LIST OF EXPERIMENTS:

- 1. **Demonstration:** Basic safety precautions. Introduction and use of measuring instruments voltmeter, ammeter, multi-meter, oscilloscope. Real-life resistors, capacitors and inductors.
- 2. **Demonstration:** Transient Time response of R-L, and R-C circuits to a step change in voltage.
- 3. **Demonstration** of Components of LT switchgear (SFU, MCB, ELCB, MCCB) and Earthing
- 4. **Demonstration** of cut-out sections of machines: dc machine (commutator-brush arrangement), induction machine (squirrel cage rotor), synchronous machine (field winging slip ring arrangement) and single-phase induction machine.
- 5. Verification of KCL and KVL for DC Circuits.
- 6. Verification of Thevenin's and Norton's Theorems.
- 7. Verification of Superposition and Reciprocity Theorems.
- 8. P-N Junction Diode Characteristics
- 9. Zener Diode
- 10. Input and Output Characteristics of Transistor in CB Configuration
- 11. Input and Output Characteristics of Transistor in CE Configuration
- 12. To study and verify the Truth Tables of AND, OR, NOT, NAND, NOR, EXOR logic gates.

Note: Minimum of 10 experiments are to be completed

COURSE OUTCOMES:

At the end of the course, the students are expected to

- 1. Understand the basic circuit laws and theorems.
- 2. Understand the basic constructional details of dc and ac machines.
- 3. Plot the V-I characteristics of PN junction Diode
- 4. Plot the input and output characteristics of Transistor in CB and CE configurations.
- 5. Realize the various logic gates.

I Year B. Tech - II Semester

L/T/P/C -/-/3/1.5

(MR20-1ES0133) PYTHON PROGRAMMING & DATA STRUCTURES LAB

COURSE OBJECTIVES:

- 1. Learn Basics of Python Programming.
- 2. Learn syntax and semantics and create Functions in Python
- 3. Discover how to work with List and sequence data
- 4. Learn core python scripting elements such as variables and flow control structures
- 5. To Learn how to design and program python applications
- 6. Learn different sorting techniques

Week 1:

- A. List out Different IDE's? Write and execute how to install python and setting Path?
- B. Write a Python Program to declare and assign a Value to a variable?
- C. Write a Python Program to change the value of variable?
- D. Write a Python Program to assign multiple values to multiple variables?

Week 2:

- A. Write a python program to perform Arithmetic operators in python?
- B. Given 2 variables and perform a = 0011 1100, b = 0000 1101 bitwise operation?
- C. Write a program to find sum, difference, product, multiplication, division of two numbers by taking the input from user?
- D. Write a program to find that given year is leap year or not?

Week 3:

- A. Create a list and perform the following methods
 - 1) insert() 2) remove() 3) append() 4) len() 5) pop() 6)clear()
- B. Create a dictionary and apply the following methods
 - 1) Print the dictionary items 2) access items 3) use get() 4)change values 5) use len()
- C. Create a tuple and perform the following methods
 - 1) Add items 2) len() 3) check for item in tuple 4)Access iems
- D. Create a set and perform the following methods
 - 1) add() 2) update()

Week 4:

- A. Write a python program to add two numbers?
- B. Write a python program to print a number is positive/negative using if-else?
- C. Write a python program to find largest number among three numbers?
- D. Write a python Program to read a number and display corresponding day using if elif else?

Week 5:

- A. Write a python program to find the sum of all numbers stored in a list
- B. Write a python program to print numbers from 20 to 100 using range()
- C. Write a python program to add natural numbers up to sum = 1+2+3+.... +n take the input from the user by using While Loop
- D. Write a python program to perform different String methods like lower(), upper(), join(),split(),find(), replace()

Week 6:

- .A. Write a program to create a menu with the following options
 - 1. TO PERFORM ADDITITON
 - 2. TO PERFORM SUBTRACTION
 - 3. TO PERFORM MULTIPICATION
 - 4. TO PERFORM DIVISION

Accepts users input and perform the operation accordingly. Use functions with arguments.

- B. Demonstrate a python code to implement abnormal termination?
- C. Demonstrate a python code to print try, except and finally block statements.

Week 7:

- A. Using a numpy module create an array and check the following:
 - 1. Type of array 2. Axes of array 3. Shape of array 4. Type of elements in array
- B. Using a numpy module create array and check the following:
 - 1. List with type float 2. 3*4 array with all zeros 3. From tuple
 - 4. Random values
- C. Using a numpy module create array and check the following:
 - 1. Reshape 3X4 array to 2X2X3 array
 - 2. Sequence of integers from 0 to 30 with steps of 5
 - 3. Flatten array
 - 4. Constant value array of complex type

Week 8:

- A. Write a python bubble sort program to sort the elements by taking the input from user
- B. Write a python program to perform insertion sort.
- C. Write a python program to arrange the elements in ascending order using selection sort
- D. Write a python function to arrange the elements in ascending order using Merge sort

Week 9:

- A. Write a python program to create a linked list and display its elements.
- B. Write a python program to traversing a linked list.
- C. Write a python program to perform insert operation using linked list
- D. Write a python code to demonstrate Implementing stack list, push into a stack and pop from a stack

Week 10:

- A. Write a python code to demonstrate Implementing Queue using deque and list.
- B. Write a python code to add elements to a queue.

Week11:

- A. Write a python program to print Breadth First Search for a Graph.
- B. Write a python program to print Depth First Search for a Graph.

Week12:

- A. Write a python program to print In-order Tree Traversal.
- B. Write a python program to print Pre-order Tree Traversal.
- C. Write a python program to print Post-order Tree Traversal.

COURSE OUTCOMES:

- 1. Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python
- 2. Express different Decision Making statements and Functions
- 3. Write python functions to facilitate code reuse
- 4. Define the structure and components of a python programmer
- 5. Demonstrate different python data structures
- 6. Understand and implement different sorting, searching and, linked lists
- 7. Understand and implementation of Graphs
- 8. Understand and implementation of Tree Traversals.

I Year B. Tech - II Semester

L/T/P/C -/- /2 /1

(MR20-1HS0131) ENGLISH LANGUAGE COMMUNICATION SKILLS LAB

The Language Lab focuses on the production and practice of sounds of the English language and familiarizes the students with its use in everyday situations and contexts.

COURSE OBJECTIVES:

Students will be able:

- 1. To facilitate computer-assisted multi-media instruction enabling individualized and independent language learning.
- To sensitize students to the nuances of English speech sounds, word accent, intonation and rhythm.
- 3. To bring about a consistent accent and intelligibility in students' pronunciation of English by providing an opportunity for practice in speaking.
- 4. To improve the fluency of students in spoken English and neutralize their Mother Tongue Influence.
- 5 To train students to use language appropriately for public speaking.

English Language Communication Skills Lab has two parts:

- I. Computer Assisted Language Learning (CALL)
- II. Interactive communication Skills (ICS)

UNIT-I

CALL Lab: Introduction to Phonetics –Speech Sounds **Practice:** Vowels and Consonants- Transcriptions

ICS Lab: Ice-Breaking activity

Practice: JAM session

UNIT-II

CALL Lab: Pronunciation: Past Tense Markers and Plural Markers **Practice:** Ted Talks (Focus on Past Tense Makers and Plural Makers)

ICS Lab: Situational Dialogues--Greetings - Taking Leave - Introducing Oneself and Others - Requests

and Seeking Permissions

Practice: Role Plays (Language Functions)

UNIT-III

CALL Lab: Syllable and Syllabification **Practice:** British Council sounds right.

ICS Lab: Communication at Workplace-Situational Dialogues

Practice: Role Plays (Formal) – Seeking Clarifications

Asking for and Giving Directions – Thanking and Responding – Agreeing and Disagreeing -

Seeking and Giving Advice.

UNIT-IV

CALL Lab: Word Stress and Intonation **Practice:** Native speaker conversations

ICS Lab: Information transfer – from visual to verbal - maps, charts, tables and graphs

Practice: Presenting and giving directions

UNIT-V

CALL Lab: Errors in Pronunciation- Accent - the Influence of Mother Tongue (MTI)

Practice: Indian Vs British / American

ICS Lab: Making a Short Speech - Extempore

Practice: To give a short speech on Contemporary topics.

ELCS Lab:

1. Computer Assisted Language Learning (CALL) Lab:

The computer aided Language Lab for 60 students with 60 systems, one master console, LAN facility and English language software for self-study by learners.

System Requirement (Hardware component):

Computer network with LAN with minimum 60 multimedia systems with the following specifications:

- i) P –IV Processor
- a) Speed -2.8 GHZ
- b) RAM-512 MB Minimum
- c) Hard Disk -80 GB
- ii) Headphones of High quality

2. Interactive Communication Skills (ICS) Lab:

A Spacious room with movable chairs and audio-visual aids with a Public Address System, a T. V., a digital stereo –audio & video system and camcorder etc.

COURSE OUTCOMES:

The students will have attained:

- 1. To listen actively, speak fluently and write accurately.
- 2. To speak with clarity and confidence reducing MTI and enhancing Employability Skills.
- 3. To demonstrate better understanding of nuances of English Language.
- 4. To communicate intelligibly at work place.
- 5. To plan and present ideas explicitly.:

I Year B.Tech - II Semester

L/T/P/C 1/1/-/1

(MR20-1HS0132) FOREIGN LANGUAGE – FRENCH

COURSE OBJECTIVES:

INTRODUCTION

In view of the growing importance of foreign languages as a communication tool in some countries of the world, French has been identified as one of the most popular languages after English. As a result, French program is introduced to develop the linguistic and communicative skills of engineering students and to familiarize them to the French communication skills. This course focuses on basic oral skills.

OBJECTIVES

- 1. To inculcate the basic knowledge of the French language
- 2. To hone the basic sentence constructions in day to day expressions for communication in their vocation
- 3. To form simple sentences that aids in day-to-day communication
- 4. To prepare the students towards DELF A1
- 5. To develop in the student an interest towards learning languages.

UNIT - I:

Speaking: Introduction to the French language and culture –Salutations - French alphabet - Introducing people

Writing: Understand and fill out a form

Grammar: The verbs "to be ' and "to have " in the present tense of the indicative

Vocabulary: The numbers from 1 to 20 - Professions- Nationalities

UNIT - II:

Speaking: Talk about one's family – description of a person - express his tastes and preferences - express possession - express negation

Writing: Write and understand a short message

Grammar: Nouns (gender and number) - Articles - The–erverbs in the present-Possessive adjectives - Qualifying adjectives

Vocabulary: The family – Clothes-Colors- The numbers from 1 to 100-The classroom

UNIT-III

Speaking: Talk about your daily activities - be in time - ask and indicate the date and time - talk about sports and recreation - express the frequency

Writing: A letter to a friend

Grammar: The expression of time—The—ir verbs in the present- The verbs do, go, take, come, - Adverbs-Reflexive verbs

Vocabulary: The days and months of the year- The Sports-Hobbies

UNIT-IV

Speaking: Express the quantity - ask and give the price - express the need, the will and the capacity - compare (adjective) - speak at the restaurant / in the shops

Writing: A dialogue between a vendor and a customer at the market

Grammar: Verbs "to want", "to can"- Express capacity / possibility- Express will / desire – the future tense

Vocabulary: The food – Meals-Fruits and vegetables – The parts of the body

UNIT-V

Speaking: Express the prohibition and the obligation - describe an apartment - talk about the weather / ask the weather - ask the opinion - give your opinion - express your agreement or disagreement Writing: Descriptions

Grammar: Demonstrative adjectives- Prepositions- The verb 'must' to indicate obligation and necessity in the present

Vocabulary: Seasons – Holidays-The city– Furniture

NOTE: The students are exposed to simple listening and reading activities.

REFERENCE BOOKS:

- 1. Apprenons le Français 1& 2, New Saraswati House, 2015
- 2. A propos, A1, Langers International, 2010
- 3. Easy French Step-by-step by Myrna Bell Rochester
- 4. Ultimate French Beginner-Intermediate (Coursebook) By Livid Language
- 5. Ã L'Aventure: An Introduction to French Language and Francophone Cultures by Evelyne Charvier-Berman, Anne C. Cummings.

COURSE OUTCOMES:

- 1. The students will be able to communicate in French at A1 level.
- 2. The student will have an advantage in the competitive job market.
- 3. This course benefits the graduates when pursuing study opportunities in the countries where French is the official language.