

20MCA19 - COMMUNICATION SKILLS

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PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

Upon completion of the course students will be able to

CO1 : *Develop Communication and Soft skills through self assesment to excel at work place.*

CO2 : *Apply intonation rules, Phonetic patterns and formulate appropriate speech patterns .*

CO3 : *Apply the rules of grammar viz., Parts of speech, Idioms, Phrasal Verbs, Concord, Cause and Effect, purpose and function and write a technical passage correctly.*

CO4 : *Summarize a technical text and write a process description.*

CO5 : *Plan, Structure and present a 15 minutes presentation on a technical topic.*

COMMUNICATION SKILLS

Introduction - Code and Content - Stimulus and Response: Source - The Encoding Process - The Channel - The Decoding Process - The Receiver - Speaking Skills - Effective Speaking Guidelines - Communicating Soft Skills: A Self-assessment - Closing Tips on Improving Speaking Skills.

INTRODUCTION TO SPEECH SOUNDS

Pronunciation Etiquette - Phonetics: Phonetic Chart - Exercise - Syllabus - Stress - Accent - Rhythm - Intonation

FOCUS ON LANGUAGE

Synonyms and Antonyms - Idioms - Phrasal Verbs - Nouns-Compound Nouns & Noun Phrases - Gerunds & Infinitives - Subject Verb Agreement- Tenses - Adjectives and Adverbs - Active Passive voice - Cause and Effect Sentences - Purpose and Function.

READING & WRITING

Reading Comprehension - Techniques for Good Comprehension - Skimming & Scanning -Sequencing of Sentences - Paragraph Construction - Paragraph Patterns - Kinds of Paragraph - Writing a First Draft, Revising & Finalizing - Steps to Effective Précis Writing - Process Description - Dialogue Writing

LISTENING & SPEAKING

Importance of Listening & Empathy in Communication - Reasons for Poor Listening - Traits of a Good listener - Listening Modes - Short Dialogues - Short Conversation Achieving Confidence, Clarity & Fluency - Paralinguistic Features - Barriers to Speaking - Types of Speaking - Persuasive Speaking - Public Speaking-Conversations - Telephonic Conversations & Etiquette - Effective Presentation Strategies - Planning - Outlining & Structuring - Nuances of Delivery.

REFERENCES

1. *Meenakshi Raman, Sangeeta Sharma, "Technical Communication - English Skills for Engineers", Oxford University Press, New Delhi, 2015.*
2. *Kiranmani Dutt P., "A Course in Communication Skills", Cambridge University Press, 2011.*
3. *Samson T, "Innovate with English", Cambridge University Press, 2012.*
4. *Michael Mc Carthy and Felicity O'Dell, "English Vocabulary in Use", Cambridge University Press, 2012.*

20MCA27 - PROFESSIONAL ENGLISH

L	T	P	C
0	0	2	1

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

Upon completion of the course students will be able to

C01 : *Generate ideas, Acquire right communication and interpersonal skills.*

C02 : *Set career goals and formulate strategies by Prioritizing, Organizing and Scheduling for the required task.*

C03 : *Project appropriate grooming and right etiquette in the corporate context.*

C04 : *Prepare a job application letter with a Resume or C.V.*

C05 : *Exhibit appropriate grooming and right etiquettes for Interviews and Group Discussion tasks.*

SOFT SKILLS

Introduction to Soft Skills - Lessons from the Three Case Studies - Change in Today's Workplace: Soft Skills as a Competitive Weapon - Antiquity of Soft Skills - Classification of Soft Skills: Time Management - Attitude - Responsibility - Ethics, Integrity, Values and Trust - Self-confidence and Courage - Consistency and Predictability - Teamwork and Interpersonal Skills - Communication and Networking - Empathy and Listening Skills - Problem Solving, Troubleshooting and Speed Reading - Leadership

GOAL SETTING AND TIME MANAGEMENT

Goal Setting - Immediate, Short Term and Long Term Goals - Smart Goals - Strategies to Achieve Goals - Confidence Building, Self-esteem, Motivation - Time Management - Identifying Time Wasters - Time Management Skills.

ETIQUETTE

Etiquettes - Email, Professional, Dining & Telephone - Social Etiquette - Corporate Etiquette - Personal Grooming - Using minimal Body Language - Leadership and Entrepreneurship : Corporate Training - Professionalism - Self awareness - Creativity skills - Cognitive Development - Assertiveness - Positive Thinking and Attitude.

WRITING

- Job Applications: Writing Resume or Curriculum Vitae: Introduction - Difference between a Resume and a CV - The Strategy of Resume Writing - A Favourable First Impression - The Main Body of the Resume - A Fresher's Resume - A Few Helpful Tips - E-mails.

SPEAKING

Job Interviews: Introduction - Types of Interviews - Groundwork before the Interview - Importance of body Language in Interview - Need for proper Articulation - Concluding an Interview - Telephonic or Video Interview - A Mock Interview - Group Discussion: Introduction - Ability to Work as a Team - Communication Skills - Active Listening - Non-verbal Communication - Leadership and Assertiveness - Reasoning - Ability to Influence - Innovation, Creativity, and Lateral Thinking - Flexibility - Key Steps to Succeed in a Group Discussion - The Responsibility of the First Speaker - Concluding the Discussion - Dos and Don'ts during a Group Discussion

REFERENCES

1. *Meenakshi Raman, Sangeeta Sharma, "Technical Communication - Principles and Practice", 2nd edition, Oxford University Press, New Delhi, 2015.*

2. *Simon Sweeney, "English for Business Communication", Cambridge University Press, 2013.*
3. *Mukhopadhyay Lina, "Poly Skills: A Course in Communication Skills and Life Skills" Cambridge University Press, 2012.*
4. *Krishna Mohan & Merra Banerji, "Developing Communication Skills", 2nd Edition. Macmillan Publishers India Ltd. 2012.*
5. *Mitra K.Barun, "Personality Development and Soft Skills", Oxford University Press, 2011.*

20MCA28 - MINI PROJECT

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

Upon completion of the course students will be able to

C01 : *Analyze different domains, identify problems that require software solutions and justify.*

C02 : *Choose appropriate problem solving techniques for the identified problem.*

C03 : *Practice software engineering principles and programming skills in developing software solutions.*

C04 : *Test the developed software to ensure compliance of requirements.*

C05 : *Write the project report demonstrating the contribution and complete technical details.*

Students have to undertake a project approved by their concerned supervisor. Starting from Analysis to implementation, they have to follow software engineering concepts effectively. At the end of the semester, Students have to submit a report. Evaluation of the project will be carried out by a panel of examiners duly constituted twice besides the final presentation.

AREAS FOR PROJECT

1. Application using Android platform
2. Application in Internet of Things
3. Data Analytics / Data Mining applications using latest implementation software.
4. Network based applications
5. Application on Cloud computing
6. Application in Security/Block chain Management
7. Accounting / Commercial / Information Management / Scientific / web applications using latest software.
8. Not limited to the above. Any latest Concepts / Social problems can be considered.

20HAC01 - HACKATHON

L	T	P	C
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- One Credit course on Hackathon is Compulsory for the students of 2nd Semester MCA
- Evaluation will be done under continuous assessment Scheme
- The maximum mark is 100 and will be converted to appropriate grades. Pass is mandatory for the award of degree.
- There will be two reviews and the performance of the students participating in the Hackathon will be jointly evaluated by two examiners (One Internal + One External) during 2nd semester
- 75% attendance is mandatory for the students to appear in the final review.
- Candidates have to submit a detailed report on the Hackathon that he or she has attended and this report should be submitted during the final review.
- Candidates with shortage in attendance or failing to attend the final review have to redo the hackathon during the even semester of the next academic year.
- Credits earned shall be over and above of the credit requirement for the award of degree. Idea Submission and Evaluation Process
- Students are unveiled of problems on various hackathon portals for being aware of hackathons few of them listed as below

Sl.No	Name of Hackathon Company	
1.	Codevita / HackQuest	TCS
2.	Tata Cruicable Campus Hackathon	TATA
3.	Code Gladiators 2020	TECHGIG
4.	Smart India Hackathon 2020	MHRD

- Theme and problem statement of hackathon is chosen and duration and dates of hackathon are specified
- Students are allowed to participate as 6 member teams.
- The evaluation is of two stages first one for submission of a proposal and the second one for building a prototype.
- The hackathons are to be presented by the teams in two reviews first to the internal member and final to the external member
- Mark split up for internal and external members are decided with a total of 100 marks of which the pass percentage is 50%.

20MCAIT01 - INPLANT TRAINING

L	T	P	C
0	0	0	1

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

Upon completion of the course students will be able to

- C01** : *Exposure to the industrial environment, recognize the requirement of the industry and cope up with the Industrial scenario.*
- C02** : *Recognize career paths taking into account their individual abilities and prepare a report about the work experience in industry*
- C03** : *Communicate effectively about the training through technical presentation.*
- C04** : *Develop their employability and start-up skills and to enhance the ability to engage in, life-long learning*
- C05** : *Develop individual confidence to handle various engineering assignments and ability to think strategically and expose themselves to acquire life skills to meet societal challenges*

20MCA41 - PROJECT WORK AND VIVA VOCE

L	T	P	C
3	0	0	3

PRE-REQUISITES

Consent of the Supervisor assigned.

ASSESSMENT : PRACTICAL

COURSE OUTCOMES

Upon completion of the course students will be able to

C01 : *Comprehensively demonstrate understanding of the software development processes and practices.*

C02 : *Work to a professional standard in a specified role.*

C03 : *Contribute effectively/co-operatively within a team.*

C04 : *Exhibit industry-standards of professionalism in their work through knowledge or use of latest techniques and tools.*

C05 : *Reflect on the work done and own role and present their work through a report and formal viva.*

19FYEL11 - EMPLOYABILITY SKILLS

Contact Hours

L	T	P	C
0	0	2	1

COURSE OUTCOMES

CO1: Given strictly timed objective questions on logical reasoning and verbal ability solve within the given time.

CO2: For a given specific speaking task on topics like describing a picture, movie reviews, storytelling, and extempore generate ideas and speak confidently.

CO3: For a given social situation viz., greeting, thanking, congratulating, apologizing and giving directions, demonstrate command over conversations using appropriate functional expressions.

CO4: For a given 2 to 5 minutes speaking activity like Extempore and Debate, produce language structures accurately and fluently. For a given technical topic, prepare a power point presentation for 15 minutes.

CO5: Given short conversations and monologues for listening, specify appropriate responses and construct a summary. Construct dialogues for a given social scenario and interpret the given graphic information and write creative paragraphs.

INTRODUCTION TO SPOKEN ENGLISH

Self-Introduction - Barriers to Speaking and Listening - Introduction to Spoken English, Greetings, Thanking - Apologizing, Congratulating - Giving Directions, Shopping – Role Play.

(6)

VOCABULARY

Activity based on newspaper articles - Word Building - A picture and a few words activity - Current Events.

(4)

VERBAL APTITUDE

Alphabet test – Alphabet Order, Alphabet Series - Letter Word Problem, Word Formation and Scramble - Series Completion – Para Jumbles- Synonyms and Antonyms- Types and Exercises- Sentence Completion –Types and Exercises.

(8)

READING AND PRESENTATION SKILLS

Reading Comprehension- Skimming and Scanning - Reading Prose – Bacon’s Essays (Speaking Activity based on the essays) - Story Building- Extempore - Movie Reviews.

(4)

LSRW SKILLS

Speech Sounds - Word Vocabulary - Reading Comprehension - Listening Practice- I -Dialogue Writing - Conversational Exercise – I - Focus on Language - Creative Writing - Conversational Exercise – II - Listening Practice – II.

(8)

TOTAL HOURS: 30

19MAMLE01- PROFESSIONAL ENGLISH

Contact Hours

L	T	P	C
2	0	0	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: THEORY

COURSE OUTCOMES

CO1: Apply the rules of grammar namely Active and Passive voice, Direct and Indirect speech, Purpose and Function, Articles and Prepositions, Conjunction, Conditional sentences and use suitable patterns in a given sentence or passage.

CO2: Construct appropriate responses to greet, transfer, place the caller on hold, enquires, call backs, unintentional disconnects, interruptions, using suitable language and telephoning etiquettes. Given a business communication scenario construct a suitable strategy and action plan using specific negotiation tactics consistent with the objectives of the negotiator.

CO3: Given a communication context, specify the type and barriers to listening provide solutions and justify. For a given passage note the important points and summarize it.

CO4: Given a business communication scenario, compose a Business Letters, Memo, Emails, Reports, Technical Proposals, Instructions and Recommendation and checklist using appropriate language and format. For a given job requirement, prepare a job application letter with resume.

CO5: Generate valid points for and against the topic and present them with appropriate group behavior for a given HR topic and for any job requirement, plan and prepare for a 20 min HR mock interview.

FOCUS ON LANGUAGE: ENGLISH GRAMMAR & VOCABULARY

One Word Substitutes – Homophones – Homonyms – Eponyms – Direct Indirect Speech – Active Passive Voice – Conditional Sentences – Adverbs – Conjunctions – Prepositions – Articles – Relative Clause – Pronouns – Cause and Effect Expressions – Purpose and Function – Modals.

(6)

BUSINESS ENGLISH

Telephoning Skills: Understanding Telephone communication – Telephonic Conversations and Etiquettes - Handling Calls – Leaving a Message – Making Requests –Asking for and Giving Information – Giving Instructions - Negotiations: Types of Negotiation –Six Basic Steps of Negotiations – Informal and formal Negotiations.

(4)

READING

Summarizing – SQ3R Reading Technique – Note Making: Outline/Linear Method- Sentence Method – Schematic/Mapping Method – Understanding Discourse Coherence – Cloze Comprehension – Critical Reading: Creative and Critical Thinking- Reading proverbs, online advice forum.

(4)

WRITING

Letter Writing – Business Letters – Cover Letters – Resumes – Memos – Emails – Reports – Technical Proposals – Instructions & Recommendations – Technical Description – Checklist - Writing a paragraph – Writing a description of a person's past present and future, recent experiences, movie review, list of roles

– Writing a job application letter, Advice column list - Writing a guide book introduction – Writing about people response to a survey.

(6)

LISTENING

Stress and Intonation -Types of Listening – Barriers of Effective Listening – Listening for Generic Content and Specific Information - Listening & Note Taking – Intensive Listening - Listening to Descriptions - Listening to predicaments, call in radio show and excuses.

(4)

SPEAKING

Group Communication: Forms of Group Communication – Using Body Language in Group – Discussions – Group Discussions - Organizational GD – GD as a Part of Selection Process – Meetings – Conferences – Symposia & Seminars – Interviews: Objectives of Interviews – Types of Interviews – Job Interviews – Media Interviews – Press Conference - Describing abilities and Skills, acceptable and prohibited behaviour in different situations, Personality Traits, Countries, a predicament, Recent past events and experiences, movies and books – Giving Advice and suggestions- Making polite requests – Making invitations and excuses- Speculating about past and future events.

(6)

Practical sessions based on theory

TOTAL HOURS: 30

TEXTBOOKS

1. Jack C Richerds, ‘Interchange – 2’, Fourth Edition, Cambridge University Press, 2015.
2. Meenakshi Raman, Sangeeta Sharma, ‘Technical Communication – Principles and Practice’, Oxford University Press, 2015.

REFERENCES

1. Sudharshana N. P and Savitha C, ‘English for Technical Communication’, CUP, 2016.
2. Sudharshana N. P and Savitha C, ‘English for Engineers’, CUP, 2018.
3. Ronald Carter and Michael Mc Carthy, ‘Cambridge Grammar of English’, Cambridge University Press, 2011.
4. Michael Mc Carthy and Felicity O’Dell, ‘English Vocabulary in Use, Cambridge University Press, 2012.
5. Mark Ibbotson, ‘Cambridge English for Engineering’, Cambridge University Press, 2012.

19FY22F - BASIC FRENCH

Contact Hours

L	T	P	C
2	0	1	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: THEORY

COURSE OUTCOMES

CO1: Understand the basics of the Language

CO2: Write simple narration and description and speak to communicate idea.

CO3: Demonstrate confidence in Social Interactions.

INTRODUCTION

(2)

UNITÉ-1

Faire connaissance - inviter et répondre à une invitation - décrire les personnes- articles définis et indéfinis - genre et nombre des noms et des adjectifs- interrogation et négation - conjugaison du présent. Paris monuments et lieux publics - la vie de quatre parisiens de professions différentes.

(7)

UNITÉ-2

Exprimer l'ordre et l'obligation demander et commander - évaluer et apprécier- féliciter et remercier - articles partitifs -adjectifs démonstratifs et possessifs prépositions et adverbes de quantité et de l'imperatif verbes pronominaux - une région de France la Bourgogne - vie quotidienne à la campagne.

(6)

UNITÉ-3

Raconter et rapporter - donner son avis - se plaindre et réprimander - expliquer et justifier - pronoms compléments -futur proche - passé composé et imparfait. Plusieurs régions de France - différents univers sociaux.

(7)

UNITÉ-4

Demander l'autorisation - interdire - formuler des projets - discuter et débattre. Pronoms < en > et < y > - pronoms relatifs et superlatifs - conjugaison du futur - présent continu et passé récent. La vie administrative et régionale - problèmes économiques et écologiques - traditions et modernité.

(8)

Practical sessions based on theory

(15)

TOTAL HOURS: 45

TEXTBOOK

1. Le Nouveau Sans Frontières - Philippe Dominique, Jacky Girardet Michèle Verdelhan, Michel Verdelhan

19FYEL21 - ENGLISH FOR EMPLOYABILITY

Contact Hours

L	T	P	C
0	0	2	1

COURSE OUTCOMES

CO1: Given strictly timed objective questions on logical sequence of words, sequential order of things, comparison, and sentence correction, solve within the given time.

CO2: For a given specific speaking task on topics like Just a Minute Describing an object, book review and extempore generate ideas and speak confidently.

CO3: For a given social situation viz., Travel and Transport, complaining, giving instructions, advising and sympathizing, requesting and warning people, communicate effectively to peer using appropriate functional language.

CO4: For a given HR topic, generate valid points for and against the topic and present them with appropriate group behavior. For any job requirement, plan and prepare a 20 min HR mock interview.

CO5: For any job requirement, plan and prepare a 20 min HR mock interview.

SPEAKING SKILLS

Ice Breakers - Just a Minute - Book Reviews - Describing an object – Extempore – Paraphrasing.

(6)

FUNCTIONAL ENGLISH

Spoken English - Travel and Transport, Complaining - Giving Instructions, Advising and Sympathizing – Requesting and warning people.

(5)

VERBAL APTITUDE

Logical Sequence of Words- Exercises - Sequential Order of Things - Comparison Type Questions – Introduction and Exercises - Idioms and Phrases - Types and Exercises - Vocabulary through Mythology - One-word Substitutes, Word Power Exercises - Common Errors in English - Sentence Correction.

(7)

VOCABULARY IN CONTEXT

Activity based on newspaper articles - Vocabulary – Homophones and Homonyms - Reading Prose – Reading Comprehension Activity.

(4)

GROUP DISCUSSION AND INTERVIEW SKILLS

Professional Communication - Mock Group Discussion – Mock Interview – Telephoning Skills – Personality Development Activities.

(8)

Total: 30 Hours

19MAM59 - PERSONALITY DEVELOPMENT

Contact hours

L	T	P	C
0	0	4	2

ASSESSMENT: PRACTICAL

COURSE OUTCOMES

CO1: Ascertain the various concepts of Self like the Physical Self – Energy Self – Intellectual Self –Mental Self – Blissful Self with respect to the Western (Occidental) and Eastern (Oriental) theories of Self and Personality Development.

CO2: Outline the significant effects of Self Confidence to build team confidence, given the foundation principles of Self-Motivation and Confidence.

CO3: Assess the various personalities and Attitudes and choose the best attitude for making bold decisions in personal and professional contexts.

CO4: Project the appropriate grooming and the right etiquette in the corporate context to excel in professional life.

CO5: Set Career goals and formulate strategies by Prioritizing, organizing and scheduling the required tasks. Project the appropriate grooming and the right etiquette in the corporate context to excel in professional life.

PERSONALITY DEVELOPMENT

One's Personality Sends Out a Signal That Others Read – Same Person: Consciously Different Personalities can be Powerful – There isn't One Right Personality; It Differs by Role – Learning about Personality Development from the Three Cases – Personality Analysis – Freudian Analysis of Personality Development – Swami Vivekananda's Concept of Personality – Development: Physical Self – Energy Self – Intellectual Self – Mental Self – Blissful Self – Personality Begets.

(7)

LEADERSHIP QUALITIES & INTERPERSONAL SKILLS

Resolving Conflict – A Smiling Face – Appreciative Attitude – Assertive Nature –Communication Skills – Listening Skills – Developing Empathy – The Personality Attribute of Taking Bold Decisions – Personality Types and Leadership Qualities – Mapping the Different Personality Types – Personality Tests: Example of a Personality Test: Jung Typology Test – Personality Assessment.

(7)

ETIQUETTE

Social Etiquette – Corporate Etiquette - Personal Grooming – Using minimal Body Language –Leadership and Entrepreneurship: Corporate Training – Professionalism - Self awareness –Creativity skills – Cognitive Development – Assertiveness – Positive Thinking and Attitude.

(8)

GOAL SETTING AND TIME MANAGEMENT

Goal Setting – Immediate, Short Term and Long Term Goals – Smart Goals – Strategies to Achieve Goals - Confidence Building, Self-esteem, Motivation - Time Management –Identifying Time Wasters – Time Management Skills.

(8)

TOTAL HOURS: 30

19MAME18 - CYBER SECURITY

Contact Hours

L	T	P	C
3	0	0	3

ASSESSMENT: THEORY

PRE-REQUISITES

Consent of the Instructor

COURSE OUTCOMES

CO1 : Understand the theoretical concept of Cyber crime

CO2 : Enumerate the different legal responses to Cybercrime

CO3 : Understand and apply cyber forensics to detect threats and crimes.

CO4 : Analyze and evaluate the cyber security needs of an organization.

CO5 : Familiarize with case studies on cybercrimes and digital evidences

INTRODUCTION TO CYBER CRIME

Role of Electronic Communication Devices and Information and Communication Technologies in Cybercrime – Types of Cyber Crime – Classification of Cyber Criminals – Tools used in Cyber Crime – Factors influencing Cybercrime - Challenges to Cybercrime – Strategies to prevent Cybercrimes - Terms and Terminologies associated with Cybercrime.

(9)

CYBERCRIME - THE PRESENT AND THE FUTURE

Cryptocurrency – Bitcoin - Ethereum – Blockchain - Ransomware. **Cyber forensics:** Interrelations among Cybercrime, Cyber Forensics and Cyber Security - Cyber Forensics - Definition – Disk Forensics – Network Forensics – Wireless Forensics – Database Forensics – Malware Forensics – Mobile Forensics – Email Forensics.

(10)

TOOLS AND METHODS USED IN CYBERCRIME

Proxy Servers and Anonymizers - Phishing - Password Cracking - Keloggers and Spywares - DoS and DDoS attacks - SQL Injection - Buffer Overflow - Attacks on Wireless Networks.

(9)

ORGANIZATIONAL IMPLICATIONS

Web threats for Organizations - Security and Privacy implications from Cloud Computing - Social Media Marketing: Security Risks and Perils for Organizations - Social Computing and the Associated Challenges for Organizations – Protecting People’s Privacy in the Organization-Forensics best practices for organizations.

(9)

DIGITAL EVIDENCE

Introduction to Digital Evidence and Evidence Collection Procedure - Sources of Evidence - Impediments to collection of Digital Evidence - Challenges with Digital Evidence.

Cybercrime: Real-Life Examples -Mini-Cases- Illustration of Financial Frauds in Cyber Domain - Digital Signature-related Crime Scenarios - Digital Forensics Case Illustrations-Online Scams.

(8)

TOTAL HOURS: 45

TEXTBOOKS

1. Deje and S.Murugan, ‘Cyber Forensics’, Oxford University Press, 2018. (Para I, II, V)

2. Nina Godbole and Sunil Belapure, 'Cyber Security: Understanding Cyber Crimes, Computer Forensics and Legal Perspectives', Wiley India. (Para III, IV, V)

REFERENCES

1. James Graham, Richard Howard and Ryan Otson, 'Cyber Security Essentials', CRC Press.
2. Mead, Nancy, R.Woody, Carol, ' Cyber Security Engineering : A Practical Approach for Systems and Software Assurance', Pearson Education Asia, 2017.

19MAME19 - BUSINESS INTELLIGENCE

Contact Hours

L	T	P	C
3	0	0	3

ASSESSMENT: THEORY

PRE-REQUISITES

Consent of the instructor

COURSE OUTCOMES

CO1: Apply Engineering approach to make better business decisions by analyzing risk factors.

CO2: Devise efficient managerial decisions based on mathematical models for real time business intelligence applications.

CO3: Develop strategic project planning by analyzing customer requirements in various dimensions with cost and time efficiency.

CO4: Differentiate various prototyping models and their applicability for data modeling based on real time requirements and infrastructure.

CO5: Specify ETL operations for real time business intelligence projects using tools and analyze the feasibility in terms of strengths and weaknesses.

BASICS OF BUSINESS INTELLIGENCE(BI)

Decision Support Systems: Definition - Representation of the decision-making process - Evolution of information systems - Development of DSS. Mathematical models for decision making: Structure - Development of a model - Classes of models.

(10)

BUSINESS INTELLIGENCE STAGES AND STEPS

BI definition - BI decision support initiatives - Development approaches - Engineering stages and the development steps - Parallel development tracks - BI project team structure.

Business Case Assessment: Justification - Drivers - Business Analysis issues - Risk assessment -Activities - Deliverables – Roles.

(9)

BI PROJECT PLANNING AND REQUIREMENTS

BI project: managing-Defining-Planning - Activities - Deliverables - Roles. Project Requirements Definition: General and specific requirements - Activities - Deliverables – Roles.

(8)

DATA ANALYSIS AND APPLICATION PROTOTYPING

Data Analysis: Business focused data analysis - Top-down logical data modeling -Bottom-up source data analysis - Data cleansing - Activities - Deliverables-Roles.

Prototyping: Purpose - Best practices - Types - Building successful prototypes - Application prototyping Activities - Deliverables - Roles.

(9)

DATABASE AND ETL DESIGN

Differences in database design - Logical and physical database design - Activities - Deliverables - Roles. ETL Design: Implementation strategies - Preparing for ETL process - Designing the extract programs, Transformation programs, Load programs, ETL process flow - Evaluating ETL tools - Activities - Deliverables- Roles.

(9)

TEXTBOOKS

1. Carlo Verzellis, "Business Intelligence: Data mining and Optimization for Decision Making", John Wiley and Sons, 2009. (Para- I).
2. Larissa T.Moss and Shaku Atre, "Business Intelligence Roadmap: The Complete project life cycle for decision support applications", Addison Wesley, 2003. (Para II, III, IV & V).

REFERENCE

1. Efraim Turban, Ramesh Sharda, DursunDelen and Janine E. Aronson, "Business Intelligence – A Managerial Approach", Global Edition, Pearson, 2017

19MAMEL01 - SPATIAL DATA MODELLING AND ANALYSIS LAB

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the instructor

ASSESSMENT: PRACTICAL

COURSE OUTCOMES

CO1: Acquire skills to carry out analysis on spatial data.

CO2: Create databases for spatial data and onscreen digitization.

CO3: Demonstrate the applications of raster and vector data.

CO4: Implement raster analysis and vector analysis.

CO5: Model the spatial variability

CONCEPTS

1. Rectification and Spatial Referencing of Digital Map
2. Onscreen Digitization and Database Creation
3. Projection and Re-projection of spatial data
4. Data Conversion – Vector to Raster, Raster to Vector
5. Populating Attribute data base and querying on attribute data
6. Generation of DEM: from contours, spot heights, GRID and TIN, Isometric mapping
7. Vector Analysis – Buffering, Overlay and Network analysis, flood mapping
8. Raster Analysis – Measurement - Arithmetic overlaying, Logical overlaying, Class interval selection, choropleth maps
9. Map Output - Bar charts, Pie charts and symbols
10. Map compilation
11. Modelling spatial variability
12. Weighted Theisson polygon and districting
13. Customization and scripting

Tools: Python,QGIS,Neighborvis

REFERENCE

1. Joel Lawhead, “Learning Geospatial Analysis with Python”, Second Edition, Packt Publications, 2015.

19MAMEL02 – AUGMENTED AND VIRTUAL REALITY LAB

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

19MAME05

ASSESSMENT: PRACTICAL

COURSE OUTCOMES

CO1: Create and deploy a AR-VR application

CO2: Explore the physical principles of VR

CO3: Create a comfortable, high-performance VR application using Unity.

CO4: Identify, examine and develop software that reflects fundamental techniques for the design and deployment of VR experiences.

CO5: Develop real time applications using AR/VR techniques

CONCEPTS TO BE COVERED

1. Simple programs on Unity for VR development, and Image blending
2. Demonstration of the working of HTC Vive, Google Cardboard, Google Daydream and Samsung gear VR.
3. Develop a scene in Unity that includes: i. A cube, plane and sphere, apply transformations on the 3 game objects. ii. Add a video and audio source
4. Develop a scene in Unity that includes a cube, plane and sphere. Create a new material and texture separately for three Game objects. Change the color, material and texture of each Game object separately in the scene.
5. Create an immersive environment (living room/ battlefield/ tennis court) with only static game objects. 3D game objects can be created using Blender or use available 3D models.
6. Include animation and interaction in the immersive environment created in 3D game objects.
7. Create a virtual environment for any use case. The application must include at least 4 scenes which can be changed dynamically including good UI, animation and interaction with game objects. (e.g. VR application to visit a zoo)

Suggested Software/Tool: Unity

REFERENCE

1. Jeff W Murray, Taylor & Francis, “Building Virtual Reality with Unity And Steamvr”, 2nd Edition, 2020.

19MAMEL03 – NATURAL LANGUAGE PROCESSING LAB

Contact Hours

L	T	P	C
0	0	4	2

ASSESSMENT: PRACTICAL

PRE-REQUISITES

19MAME07,19MAM65

COURSE OUTCOMES

CO1: Practice text and word representations in NLP

CO2: Use text segmentation, text summarization and categorization to process text data

CO3: Implement and evaluate different NLP applications using machine learning and deep learning methods

CO4: Design and develop chatbot applications and machine translations

CO5: Develop NLP based applications for various domains

CONCEPTS TO BE COVERED

- Representing and computing with Text data: Simple statistics
- Accessing text corpora and lexical resources
- Processing raw text from web: regular expressions for finding patterns, tokenizing text
- Text segmentation
- Categorizing and tagging words: N-Gram
- Text classification using supervised machine learning algorithms like Naïve Bayes, Deep Neural Networks etc.)
- Speech to text, Text to Speech
- Language modelling
- Analyzing meaning of sentence
- Building chatbots/Question answering
- Machine transaction, Text summarization
- Use of transformer models

Suggested Software: NLTK(Python)

REFERENCES

1. Denis Rothman “Transformers for Natural Language Processing”,Packt, 2021
2. Sowmya Vajjala , Bodhisattwa Majumder, Anuj Gupta “Practical Natural Language Processing”, BPO, 2020.

19MAMEL04- GRAPH ANALYTICS LAB

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: PRACTICAL

COURSE OUTCOMES

CO1: Implement Graph creation and detection

CO2: Implement machine learning techniques and algorithms in graph data

CO3: Use different node embedding methods for real time problems

CO4: Implement Graph Neural Networks and Implement Graph Convolution Network

CO5: Extracting data from social networks, financial transaction systems, and more and analyze it to derive patterns.

CONCEPTS TO BE COVERED

- Graph Creation and Analysis (Statistical) , Plotting graphs and Graph properties, Extracting features using graphs
- Node Embedding -Shallow Embedding and Random walk Embedding
- Implementation of graph algorithms-(Pathfinding & Graph Search, Centrality)
- Applications of Graph Neural Networks
- Graph Convolution Network (GCN) for graph-structured data
- Machine learning on graphs- Node Classification, Link Prediction, Clustering and Community Detection.
 - Social network analysis using Graphs (Yelp Social Network Data)
 - Text Analytics and NLP using graphs
 - Graph analysis for credit card transaction

Suggested Software: Python (Networkx), Neo4j, GraphX, Gephi

REFERENCE:

1. Aldo Marzullo, Claudio Stamile, and Enrico Deusebio, Graph Machine Learning, Packt Publishing, 2021.
2. Mark Needham, Amy E. Hodler, Graph Algorithms: Practical Examples in Apache Spark and Neo4j, O'Reilly, 2019

19MAMEL05 - INTERNET OF THINGS LAB

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: PRACTICAL

COURSE OUTCOMES

CO1: Choose the required sensor and perform input output operations for a given requirement.

CO2: Devise interface circuit for connecting a chosen sensor to Arduino board.

CO3: Develop software for Arduino board to interact with the sensor to meet requirements.

CO4: Develop software to interact (send/receive data) with Web/Application server located in the Internet.

CO5: Use data analytics tool to analyse the data collected and present the report to the end user.

CONCEPTS TO BE COVERED

1. Familiarize with Arduino/Raspberry Pi
2. To interface LED/Buzzer and turn on/off LED
3. To interface with digital sensor like IR/LDR and push button to on/off the LED
4. To interface with DTH11 sensor and read and print temperature and humidity readings.
5. To interface Bluetooth and send sensor data to smartphone using Bluetooth.
6. Program to interact with Thingspeak Cloud
7. Program to interact with MQTT broker
8. Perform analytics on sensor data and visualize the results in mobile UI
9. Develop end-to-end intelligent IoT applications

REFERENCE

1. Pooja Baraskar, "Practical Internet of Things for Beginners: IOT Projects with Realsense, Azure, Arduino and Intel Edition", Apress, 2020

19MAMEL06 - CYBER SECURITY LAB

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: PRACTICAL

COURSE OUTCOMES

CO1 : Perform Encryption and Decryption techniques

CO2 : Implement detection and prevention process

CO3 : Perform detection method against various attack mechanism

CO4 : Understand the implementation of various techniques and security algorithms

CO5 : Apply different tools used for secure data transmission and for creating digital signature.

TOPICS TO BE COVERED

1. Perform Encryption and Decryption using Substitution techniques
 - a) Caesar Cipher
 - b) Playfair Cipher
 - c) Hill Cipher
2. Perform Encryption and Decryption using Transposition techniques
 - a) Rail Fence row & Column Transformation
3. Implement Diffie-Hellman Key Exchange mechanism
4. Implement the following attacks
 - a) Dictionary Attack
 - b) Brute- Force attack
5. Calculate the message digest of a text using the SHA-1 algorithm
6. Detect ARP Spoof Attack using Scapy in Python
7. Demonstrate Intrusion Detection System using any tool
8. Implement for providing secure storage and secure data transmission
9. Implement RSA Digital Signature Scheme
10. Defeating Malware - Building Trojans, Rootkit Hunter

ONE CREDIT COURSES

19MAMOC01- ECONOMETRICS AND MACHINE LEARNING IN FINANCE

Contact Hours

L	T	P	C
1	0	0	1

PRE-REQUISITES

Consent of the Instructor

COURSE OUTCOMES

CO1: Understand the fundamentals of econometrics and financial markets.

CO2: Select and implement linear regression, logistic regression and random forest models as per business requirement.

CO3: Understand the techniques of fine tuning the model parameters to improve its performance.

CO4: Apply machine learning models to financial data and derive insights.

ECONOMETRICS

Review of Probability and Statistics-Fundamentals of Economics

Financial Institutions, Products and Markets-Introduction to Financial Institutions-Introduction to Financial Products and Markets

(5)

MACHINE LEARNING IN FINANCE

Review of R programming language-Review of machine learning

Building a multiple linear regression model

Building a logistic regression model

Validating Regression Models – Performance Diagnostics

Building a regression model to forecast losses for a trading desk

Building a logistic regression model to assess the credit quality of the borrower

Building a model using KNN, K-means and Naive Bayes classifier and understanding the testing the performance of the models

Building Prudential Life Insurance Assessment using Multinomial Logit and Random Forest.

Discussing resources for having a career in model development, validation, quantitative research and data science.

(10)

TOTAL HOURS: 15

19MAMOC02 – JAVA PROGRAMMING

Contact Hours

L	T	P	C
0	0	2	1

ASSESSMENT: PRACTICALS

COURSE OUTCOMES

CO1: Able to learn and implement classes and objects in Java.

CO2: Able to apply inheritance and create interfaces for the given requirement.

CO3: Able to handle the different kinds of exceptions arising in a Java program.

CO4: Able to use IO streams for reading and writing data in Java.

CO5: Able to write socket programs in Java to create network applications.

INTRODUCTION TO OBJECT ORIENTED PROGRAMMING

Object Oriented Programming - Abstraction – objects and classes - Encapsulation- Inheritance – Polymorphism.

OOP in Java –Characteristics of Java – The Java Environment - Java Source File -Structure – Compilation- Fundamental Programming Structures in Java –Objects and Classes - Strings

(6)

INHERITANCE AND INTERFACES

Inheritance – Using Super - Creating a Multilevel Hierarchy – Constructors – Method Overriding – Using Abstract Classes – Using Final with Inheritance – The Object Class

Packages and Interfaces – Packages – Access Protection – Importing Packages - Interfaces

(10)

EXCEPTION HANDLING AND I/O

Exceptions – Exception Hierarchy - Throwing and Catching Exceptions – Built-in exceptions - Creating own exceptions. Input / Output Basics – Streams – Byte streams and Character streams – Reading and Writing Console – Reading and Writing Files

(8)

SOCKET PROGRAMMING

Basic Concepts- Protocols and Terminology-Starting Network Programming in Java-Multithreading and Multiplexing. **Database Connectivity: JDBC**

(6)

Programming exercises based on the above concepts

TOTAL HOURS: 30

REFERENCES

1. Herbert Schildt, “Java The complete reference”, 11th Edition, McGraw Hill Education, 2020

COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

DEPARTMENT OF COMPUTING

M.Sc. DECISION AND COMPUTING SCIENCES

Curriculum from the Academic Year 2017 - 2018 onwards

Semester I

Course Code	Course Name	L	T	P	C	Category
	THEORY					
17MDC11	Technical English	3	0	0	3	HS
17MDC12	Applied Algebra and Calculus	3	2	0	4	BS
17MDC13	Basic Statistical Methods	3	2	0	4	BS
17MDC14	Human Behavior	3	0	0	3	PC
17MDC15	Programming in C	3	0	0	3	PC
	PRACTICALS					
17MDC16	Computing Laboratory I (Algebra, Calculus and Statistics in SciLab and Excel)	0	0	4	2	PC
17MDC17	Programming Laboratory in C	0	0	4	2	PC
17MDC18	English Language Laboratory	0	0	2	1	EEC / HS
	Total Credits				22	

Semester II

Course Code	Course Name	L	T	P	C	Category
	THEORY					
	Language Elective	3	0	0	3	HS
17MDC21	Probability and Applications	3	2	0	4	BS
17MDC22	Principles of Management	4	0	0	4	PC
17MDC23	Web Technology	3	0	0	3	PC
17MDC24	Data Structures and Algorithms	3	0	0	3	PC
	PRACTICALS					
17MDC25	Computing Laboratory II (Probability in Excel and SciLab)	0	0	4	2	PC
17MDC26	Web Technology Laboratory	0	0	4	2	PC
17MDC27	Data Structures Laboratory using Python	0	0	4	2	PC
	Total Credits				23	

17MDC49 - MANAGERIAL COMMUNICATION SKILLS

Course Code	Course Name	L	T	P	C	Category
16MDSLE01	Professional English	3	0	0	3	HS
16FY22F	Basic French	3	0	0	3	HS
16FY22G	Basic German	3	0	0	3	HS

* Pass is required

FC - Foundation Course, PC - Professional Core, PE - Professional Elective, EEC - Employability Enhancement Course.

NOTE :

- Equal weightage for Decision Science and Computer Science is given in the design of the curriculum, which complement each other to address the industry needs.
- Students of this Programme can specialize in Decision Science and/or Computing Science by choosing interested elective courses given under different streams.

17MDC49 - MANAGERIAL COMMUNICATION SKILLS

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRACTICAL

COURSE OUTCOME

- *Conceive appropriate verbal responses from the learners to a given social situation, using the guidelines to effective speaking skills and body language.*
- *Generate trouble shooting solutions to develop team building and interpersonal skills with case studies that focus on body language and empathy.*
- *Develop appropriate responses for business phone calls and formulate effective resolutions to professional conflicts that arise out of cross cultural communication gaps in a given managerial context.*
- *Compose appropriate written responses to professional problems faced by a team at the workplace arising out of ineffective communication skills.*

INTRODUCTION

Introduction - Code and Content - Stimulus and Response: Source - The Encoding Process - The Channel - The Decoding Process - The Receiver - Speaking Skills - Effective Speaking Guidelines - Communicating Soft Skills: A Self-assessment - Closing Tips **(6)**

SOFT SKILLS

Introduction to Soft Skills - Lessons from the Three Case Studies - Change in Today's Workplace: Soft Skills as a Competitive Weapon - Antiquity of Soft Skills - Classification of Soft Skills: Time Management - Attitude - Responsibility - Ethics, Integrity, Values and Trust - Self-confidence and Courage - Consistency and Predictability - Teamwork and Interpersonal Skills - Communication and Networking - Empathy and Listening Skills - Problem Solving, Troubleshooting and Speed reading - Leadership - Body Language **(7)**

TELEPHONING SKILLS & NEGOTIATIONS

Preparing to make a telephone call - Receiving calls - Taking and leaving messages - Asking for and giving repetition - The secretarial barrier - Cross-cultural communication on the telephone - Setting up appointments - Changing arrangements - Ending a call - Cross-cultural communication on the telephone - Problem-solving on the telephone - Complaints - Negotiations: Types of negotiation - Preparation for a negotiation - Making an opening statement - Bargaining and making concessions - Accepting and confirming - Summarizing and looking ahead - Types of negotiator - Dealing with conflict - Rejecting - Ending the negotiation **(10)**

WRITING SKILLS TO CREATE AN IMPRESSION

Introduction- Fifteen Principle to Increase Clarity in Communication - Edit-Edit-Edit: The Reader's Perspective - Clarity of Thought - Clarity of Text. **(7)**

Total : 30

REFERENCE BOOKS

1. Mitra K.Barun, "Personality Development and Soft Skills", Oxford University Press, 2011.
2. Krishna Mohan, Meera Banerji. "Developing Communication Skills" Mac Million Publishers, 2012.
3. Sai Lakshmi. B, "Poly Skills- A Course in Communication and Life Skills" Cambridge University Press, 2012.

17MDC58 - PERSONALITY DEVELOPMENT

PRE-REQUISITES

PERSONALITY DEVELOPMENT

One's Personality Sends Out a Signal That Others Read - Same Person: Consciously Different Personalities can be Powerful - There isn't One Right Personality; It Differs by Role - Learning about Personality Development from the Three Cases - Personality Analysis - Freudian Analysis of Personality Development - Swami Vivekananda's Concept of Personality - Development: Physical Self - Energy Self - Intellectual Self - Mental Self - Blissful Self - Personality Begets. **(10)**

LEADERSHIP QUALITIES & INTERPERSONAL SKILLS:

Resolving Conflict - A Smiling Face - Appreciative Attitude - Assertive Nature - Communication Skills - Listening Skills - Developing Empathy - The Personality Attribute of Taking Bold Decisions - Personality Types and Leadership Qualities - Mapping the Different Personality Types - Personality Tests: Example of a Personality Test: Jung Typology Test - Personality Assessment **(10)**

ETIQUETTE

Social Etiquette - Corporate Etiquette - Personal Grooming - Using minimal Body Language - Leadership and Entrepreneurship: Corporate Training - Professionalism - Self awareness - Creativity skills - Cognitive Development - Assertiveness - Positive Thinking and Attitude. **(10)**

Total : 30

REFERENCE BOOKS

1. Mitra K.Barun, "Personality Development and Soft Skills", Oxford University Press, 2011.
 2. Krishna Mohan, Meera Banerji. "Developing Communication Skills" Mac Million Publishers, 2012.
- Sai Lakshmi. B, "Poly Skills- A Course in Communication and Life Skills" Cambridge University Press, 2012.

17MDC95 - MINOR PROJECT - DECISION TOOL DEVELOPMENT

L	T	P	C
0	0	8	4

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT : PRESENTATION AND

VIVA VOCE COURSE OUTCOME

- *Investigate the business problem in detail*
- *Identify the logical and ordered process to address all the critical elements of the business problem*
- *Analyze various alternatives and select the best alternative for the problem*
- *Develop the decision tool with the help of the analysis*

Effectiveness in managing the business decision making will ultimately determine the success of the company. But this is a problem for companies of all sizes particularly with the companies that are growing rapidly. At this point a clear mechanism for managing, communicating and confirming decision implementation is essential. Hence this minor project concentrates on developing a decision tool for the Chosen business process.

In this minor project students have to :

- Choose a business problem and develop a decision tool for to address the same.

20MSS19- EMPLOYABILITY SKILLS

Contact Hours

L	T	P	C
0	0	2	1

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: THEORY

COURSE OUTCOME

- *Given strictly timed objective questions on logical reasoning and verbal ability solve within the given time.*
- *For a given specific speaking task on topics like describing a picture, movie reviews, storytelling, and extempore generate ideas and speak confidently.*
- *For a given social situation viz., greeting, thanking, congratulating, apologizing and giving directions, demonstrate command over conversations using appropriate functional expressions.*
- *For a given 2 to 5 minutes speaking activity like Extempore and Debate, produce language structures accurately and fluently. For a given technical topic, prepare a power point presentation for 15 minutes.*
- *Given short conversations and monologues for listening, specify appropriate responses and construct a summary. Construct dialogues for a given social scenario and interpret the given graphic information and write creative paragraphs.*

UNIT – 1

Self Introduction - Barriers to Speaking and Listening - Introduction to Spoken English, Greetings, Thanking - Apologizing, Congratulating - Giving Directions, Shopping – Role Play (6)

UNIT – 2

Activity based on newspaper articles - Word Building - A picture and a few words activity - Current Events. (4)

UNIT -3

Alphabet test – Alphabet Order, Alphabet Series - Letter Word Problem, Word Formation and Scramble - Series Completion –Para Jumbles- Synonyms and Antonyms- Types and Exercises- Sentence Completion –Types and Exercises. (8)

UNIT -4

Reading Comprehension- Skimming and Scanning - Reading Prose – Bacon’s Essays (Speaking Activity based on the essays) - Story Building- Extempore - Movie Reviews. (4)

UNIT – 5

Speech Sounds - Word Vocabulary - Reading Comprehension - Listening Practice- I -Dialogue Writing - Conversational Exercise – I - Focus on Language - Creative Writing - Conversational Exercise – II - Listening Practice – II (8)

TOTAL: 30 Hours

20MSS28- ENGLISH FOR EMPLOYABILITY

Contact Hours

L	T	P	C
0	0	2	1

PRE-REQUISITES

Consent of the instructor

COURSE OUTCOME

- *Given strictly timed objective questions on logical sequence of words, sequential order of things, comparison, and sentence correction, solve within the given time.*
- *For a given specific speaking task on topics like JAM, Describing an object, book review and extempore generate ideas and speak confidently.*
- *For a given social situation viz., Travel and Transport, complaining, giving instructions, advising and sympathizing, requesting and warning people, communicate effectively to peer using appropriate functional language.*
- *For a given HR topic, generate valid points for and against the topic and present them with appropriate group behaviour. For any job requirement, plan and prepare a 20 min HR mock interview.*

UNIT – 1

Ice Breakers - Just a Minute - Book Reviews - Describing an object – Extempore Paraphrasing. (6)

UNIT – II

Spoken English - Travel and Transport, Complaining - Giving Instructions, Advising and Sympathizing – Requesting and warning people (5)

UNIT – III

Logical Sequence of Words- Exercises - Sequential Order of Things - Comparison Type Questions –Introduction and Exercises - Idioms and Phrases - Types and Exercises - Vocabulary through Mythology - One word Substitutes, Word Power Exercises - Common Errors in English - Sentence Correction (7)

UNIT – IV

Activity based on newspaper articles - Vocabulary – Homophones and Homonyms - Reading Prose –Reading Comprehension Activity (4)

UNIT – V

Professional Communication - Mock Group Discussion – Mock Interview – Telephoning Skills – Personality Development Activities. (8)

TOTAL: 30 Hours

20MSS49 - PERSONALITY DEVELOPMENT

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: PRACTICAL

COURSE OUTCOME

- *Ascertain the various concepts of Self like the Physical Self – Energy Self – Intellectual Self – Mental Self – Blissful Self with respect to the Western(Occidental) and Eastern(Oriental) theories of the Self and Personality Development.*
- *Outline the significant effects of Self Confidence to build team confidence, given the foundation principles of Self-Motivation and Confidence.*
- *Assess the various personalities and Attitudes and choose the best attitude for making bold decisions in personal and professional contexts.*
- *Project the appropriate grooming and the right etiquette in the corporate context to excel in professional life.*
- *Set Career goals and formulate strategies by Prioritizing, organizing and scheduling the required tasks. Project the appropriate grooming and the right etiquette in the corporate context to excel in professional life.*

PERSONALITY DEVELOPMENT

One's Personality Sends Out a Signal That Others Read – Same Person: Consciously Different Personalities can be Powerful – There isn't One Right Personality; It Differs by Role – Learning about Personality Development from the Three Cases – Personality Analysis – Freudian Analysis of Personality Development – Swami Vivekananda's Concept of

Personality – Development: Physical Self – Energy Self – Intellectual Self – Mental Self – Blissful Self – Personality Begets. (7)

LEADERSHIP QUALITIES & INTERPERSONAL SKILLS

Resolving Conflict – A Smiling Face – Appreciative Attitude – Assertive Nature – Communication Skills – Listening Skills – Developing Empathy – The Personality Attribute of Taking Bold Decisions – Personality Types and Leadership Qualities – Mapping the Different Personality Types – Personality Tests: Example of a Personality Test: Jung Typology Test – Personality Assessment (7)

ETIQUETTE

Social Etiquette – Corporate Etiquette - Personal Grooming – Using minimal Body Language – Leadership and Entrepreneurship : Corporate Training – Professionalism - Self-awareness – Creativity skills – Cognitive Development – Assertiveness – Positive Thinking and Attitude. (8)

GOAL SETTING AND TIME MANAGEMENT

Goal Setting – Immediate, Short Term and Long Term Goals – Smart Goals – Strategies to Achieve Goals - Confidence Building, Self-esteem, Motivation - TimeManagement –Identifying Time Wasters – Time Management Skills. (8)

Total: 30 Hours

REFERENCE BOOKS

- 1.Mitra K.Barun, “Personality Development and Soft Skills”, Oxford University Press, 2011.
- 2.Krishna Mohan, Meera Banerji. “Developing Communication Skills” MacMillan Publishers, 2012.

3.Sai Lakshmi. B, "Poly Skills- A Course in Communication and Life Skills"Cambridge University Press, 2012.

4.Simon Sweeney, "English for Business Communication", Cambridge UniversityPress, 2013.

5.Meenakshi Raman, Sangeeta Sharma, "Technical Communication - Principlesand Practice", 3rd edition, Oxford University Press, New Delhi, 2015.

20MSS57 - COMMUNICATION SKILLS

Contact Hours

L	T	P	C
0	0	4	2

PRE-REQUISITES

Consent of the Instructor

ASSESSMENT: PRACTICAL

COURSE OUTCOME

CO1 : Conceive appropriate verbal responses from the learners to a given social situation, using the guidelines to effective speaking skills and body language.

CO2 : Generate troubleshooting solutions to develop team building and interpersonal skills with case studies that focus on body language and empathy.

CO3 : Develop appropriate responses for business phone calls and formulate effective resolutions to professional conflicts that arise out of cross-cultural communication gaps in a given managerial context.

CO4 : Compose appropriate written responses to professional problems faced by a team at the workplace arising out of ineffective communication skills.

CO5 : Generate valid points for and against a HR topic and present them with appropriate group behavior. For any job requirement, plan and prepare for a 20 minute mock interview.

INTRODUCTION

Introduction – Code and Content – Stimulus and Response: Source – The Encoding Process – The Channel – The Decoding Process – The Receiver – Speaking Skills – Effective Speaking Guidelines – Communicating Soft Skills: A Self-assessment – Closing Tips (4)

SOFT SKILLS

Introduction to Soft Skills – Lessons from the Three Case Studies – Change in Today’s Workplace: Soft Skills as a Competitive Weapon – Antiquity of Soft Skills – Classification of Soft Skills: Time Management - Attitude – Responsibility – Ethics, Integrity, Values and Trust – Self-confidence and Courage – Consistency and Predictability – Teamwork and Interpersonal Skills - Communication and Networking – Empathy and Listening Skills – Problem Solving, Troubleshooting and Speed reading – Leadership – Body Language. (8)

TELEPHONING SKILLS & NEGOTIATIONS

Preparing to make a telephone call – Receiving calls – Taking and leaving messages – Asking for and giving repetition – The secretarial barrier – Cross-cultural communication on the telephone – Fixing appointments – Changing arrangements – Ending a call – Cross-cultural communication on the telephone – Problem-solving on the telephone – Complaints – Negotiations: Types of negotiation – Preparation for a negotiation – Making an opening statement – Bargaining and making concessions – Accepting and confirming – Summarizing and looking ahead – Types of negotiator – Dealing with conflict - Rejecting – Ending the negotiation. (8)

WRITING SKILLS TO CREATE AN IMPRESSION

Introduction- Fifteen Principle to Increase Clarity in Communication – Edit-Edit-Edit: The Reader’s Perspective – Clarity of Thought – Clarity of Text. (3)

SPEAKING

Job Interviews: Introduction - Types of Interviews – Planning and Preparing for an Interview

-Importance of body Language in Interview - Need for proper Articulation - Concluding an Interview - Telephonic or Video Interview - A Mock Interview - Group Discussion: Introduction

- Ability to Work as a Team – Communication Skills - Active Listening - Non-verbal Communication - Leadership and Assertiveness - Reasoning – Ability to Influence - Innovation. Creativity, and Lateral Thinking - Flexibility - Key Steps to Succeed in a Group Discussion - The Responsibility of the First Speaker - Concluding the Discussion - Dos and Don'ts during a Group Discussion. (7)

Total : 30 Hours

REFERENCE BOOKS

1. Mitra K.Barun, “*Personality Development and Soft Skills*”, Oxford University Press, 2011.
2. Krishna Mohan, Meera Banerji. “*Developing Communication Skills*” Macmillan Publishers, 2012.
3. Sai Lakshmi. B, “*Poly Skills- A Course in Communication and Life Skills*” Cambridge University Press, 2012.
4. Simon Sweeney, “*English for Business Communication*”, Cambridge University Press, 2013.
5. Meenakshi Raman, Sangeeta Sharma, “*Technical Communication - Principles and Practice*”, 3rd edition, Oxford University Press, New Delhi, 2015.

