

Branch Name:	IMCA
Program Code:	CS301
Course Name:	Technical Writing
Course Code:	1CS3010804T
Pre-requisite Course:	Basic understanding of research concepts and computer science fundamentals is required.

Course Objective:

At the end of the course, students will be able to explain the concepts of IT project management in context of general project management approaches.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	-	-	4	60	40	-	-	100

Subject Contents			
Sr. No	Topic	Total Hours	Weight (%)
1	UNIT I: Fundamentals of Technical Writing Definitions and Meaning of Technical Writing; Historical Background and Evolution of Technical Writing; Types of Technical Writing; Benefits and Scope of Technical Writing; Technical Writing vs. Literary Writing; Key Principles: Clarity, Conciseness, Accuracy, and Reader-Centeredness; The Writing Process: Planning, Drafting, Revising; Audience Analysis and Purpose Definition; Sentence-Level Editing; Common Grammar, Punctuation, and Syntax Errors.	12	25
2	UNIT II: Technical Writing Documents and Elements Instruction Manuals: Structure, Design, Style, and End-User Considerations; Technical Descriptions: Purpose, Components, and Rhetorical Situations; Brochures, FAQs, Newsletters, and Job Descriptions; Proposals: Grant Proposals and Requests for Proposals; Report Components: Abstracts, Executive Summaries, Introductions, Conclusions, Appendixes, Tables of Contents, and Titles; Types of Reports: Feasibility, Formal, Incident, Investigative, Laboratory, Progress, and White Papers; Designs and Visuals: Layout, Headers, Footers, Headings, Lists, Flowcharts, Graphs, Infographics, Organizational Charts, and Tables; Job Search Documents: Cover Letters, Resumes, Acceptance and Refusal Letters.	12	25
3	UNIT III: Research Methods and Data Collection Meaning, Objectives, and Motivation in Research; Types of Research and Research Approaches; Research Methodology vs. Research Methods;	12	25

	Research Process and Criteria of Good Research; Methods of Primary Data Collection: Observation, Interviews, Questionnaires, and Schedules; Secondary Data Collection and Source Evaluation; Brainstorming, Note-taking, and Literature Reviews; Bibliographies, Footnotes, Indexing, and Citations; Documenting Sources and Reference Styles (APA, MLA, Chicago); Plagiarism: Definition, Detection, and Strategies to Avoid It; Authorship, Copyright, Trademarks, and Patents in the Digital Age; Interviewing for Information and Presentations & Meetings.		
4	UNIT IV: Organization, Style, Language, and Digital Communication Organization and Writing: Outlining, Methods of Development (Cause & Effect, Chronological, Comparison, Classification); Style & Language: Clarity, Conciseness, Tone, Bias-Free Language, Jargon, and Plain Language; Sentences & Paragraphs: Construction, Faults (Run-ons, Fragments, Dangling Modifiers), Coherence, and Unity; Grammar & Parts of Speech: Agreement, Tense, Voice, Pronouns, and Verbal's; Mechanics & Punctuations: Abbreviations, Capitalizations, Punctuation Marks; Collaborative Writing, Content Management, Ethics in Writing; Digital Tips: Online Meetings, Collaborative Software, PDF Files, Digital Reports, Tracked Changes; Social Media and Web Writing; English as a Second Language (ESL) Trouble Spots.	12	25

Text Books:

1. Handbook of Technical Writing (11th Ed.) by Gerald J. Alred, Charles T. Brusaw & Walter E. Oliu, Macmillan Publishers.
2. Research Methodology: Methods and Techniques by C.R. Kothari, New Age International Publishers.

References Books:

1. Technical Communication: Principles and Practice by Meenakshi Raman and Sangeeta Sharma, Oxford University Press India.
2. The Craft of Research by Wayne C. Booth, Gregory G. Colomb and Joseph M. Williams, University of Chicago Press.
3. Writing Research Papers: A Complete Guide by James D. Lester and James D. Lester Jr., Pearson Education.
4. A Manual for Writers of Research Papers, Theses, and Dissertations by Kate L. Turabian, University of Chicago Press.
5. Research and Technical Writing Guide for Engineers and Scientists by Kenneth G. Budinski, ASM International.

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand the fundamentals of technical writing, its types, principles, and role in academic and professional communication.	1. Remember, 2. Understand
CLO2	Apply appropriate technical writing conventions to produce clear, well-structured, and reader-centered documents.	3. Apply
CLO3	Analyze different technical document types and select suitable formats, styles, and visual elements for specific contexts.	4. Analyze
CLO4	Evaluate research methodologies, data collection techniques, and documentation strategies for technical and academic purposes.	5. Evaluate
CLO5	Create structured technical documents including instruction manuals, reports, proposals, and presentations with professional quality.	6. Create
CLO6	Apply ethical practices in writing including plagiarism avoidance, citation standards, copyright awareness, and bias-free language.	3. Apply, 5. Evaluate

Mapping of CLOs with Pos & PSOs

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes (PSOs)	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CLO1	M	M	L	M	-	-	M	-	L	-	-	-	M	L
CLO2	M	H	M	H	M	-	M	L	-	-	-	L	H	M
CLO3	M	H	M	H	M	-	M	-	-	-	-	-	H	M
CLO4	-	M	-	M	-	L	M	-	H	-	M	-	M	-
CLO5	-	M	H	M	M	L	M	M	H	-	M	M	M	H
CLO6	-	-	-	M	-	H	M	-	M	M	-	-	-	M

H: High, M: Medium, L: Low