# Techno India NJR Institute of Technology



# Course File
# Technical Communication (3EC1-02/4EC1-02)

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Assistant Prof.
Department of Basic Science and Humanities.

### 3EC1-02/4EC1-02: Technical Communication

2 Credit                               Max. Marks: 100 (IA:20, ETE:80)
2L:0T:0P                                End Term Exam: 2 Hours

| SN | Contents | Hours |
|----|----------|-------|
| 1 | **Introduction to Technical Communication-** Definition of technical communication, Aspects of technical communication, forms of technical communication, importance of technical communication, technical communication skills (Listening, speaking, writing, reading writing), linguistic ability, style in technical communication. | 4 |
| 2 | **Comprehension of Technical Materials/Texts and Information Design & development-** Reading of technical texts, Reading and comprehending instructions and technical manuals, Interpreting and summarizing technical texts, Note-making. Introduction of different kinds of technical documents, Information collection, factors affecting information and document design, Strategies for organization, Information design and writing for print and online media. | 6 |
| 3 | **Technical Writing, Grammar and Editing-** Technical writing process, forms of technical discourse, Writing, drafts and revising, Basics of grammar, common error in writing and speaking, Study of advanced grammar, Editing strategies to achieve appropriate technical style, Introduction to advanced technical communication. Planning, drafting and writing Official Notes, Letters, E-mail, Resume, Job Application, Minutes of Meetings. | 8 |
| 4 | **Advanced Technical Writing-** Technical Reports, types of technical reports, Characteristics and formats and structure of technical reports. Technical Project Proposals, types of technical proposals, Characteristics and formats and structure of technical proposals. Technical Articles, types of technical articles, Writing strategies, structure and formats of technical articles. | 8 |
| | Total | 26 |

Office of Dean Academic Affairs
Rajasthan Technical University, Kota

For Techno India NJR Institute of Technology
पंकज पोरवाल
Dr. Pankaj Kumar Porwal
(Principal)

## Course Overview –

Students will be able to learn and understand how to follow the various stages of the writing process like prewriting, writing and rewriting and apply them to technical and workplace writing. Students will understand the basics components of definitions, descriptions, process explanations, and other common technical writings. Students will be able to read, understand and interpret material on technology. They will have appreciation for some of the ideas, issues and problems involved in writing about technology and in workplace writing. Students will be able to get an in-depth knowledge of technical communication used in professional life by getting to know all the forms and aspects of technical communication. Students will be able to express themselves better in technical writing by understanding the concept, style and methodology used in technical communication.

## Course Outcomes –

1. Students will be able to learn and understand how to follow the various stages of the writing process like prewriting, writing and rewriting and apply them to technical and workplace writing.
2. Students will understand the basic components of definitions, descriptions, process explanations, and other common technical writings.
3. Students will be able to read, understand and interpret material on technology.
4. They will have appreciation for some of the ideas, issues and problems involved in writing about technology and in workplace writing.
5. Students will be able to get an in-depth knowledge of technical communication used in professional life by getting to know all the forms and aspects of technical communication. They will be able to express themselves better in technical writing by understanding the concept, style and methodology used in technical communication.

## Course Outcome Mapping with Program Outcome –

| PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 3 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

3   3   3   3   3   0   0   0   0   0   0   0

1 – Slight (low)
2 – Moderate (medium)
3 – Substantial (high)

## Course Module Lecture-wise –

| Lecture No. | Unit | Topic |
|---|---|---|
| 1 | 1 | Introduction: Technical Communication, meaning of technical communication. |
| 2 | 1 | Modes of Communication – Bifurcations of different modes of communication. |
| 3 | 1 | Barriers to Communication. |
| 4 | 1 | Interpersonal Barriers -. Information Gap Principle. |
| 5 | 1 | Basics of TC. Levels of TC. |
| 6 | 1 | Communication Networks. |
| 7 | 1 | Visual Aids in TC – tables and graphs. Types of graphs and tables. Uses of visual aids. |
| 8 | 2 | Active Listening – Introduction and Reasons for poor listening. |
| 9 | 2 | Listening Modes – Traits of a good listener. Types of listening. |
| 10 | 2 | Barriers to Effective listening. |
| 11 | 2 | Phonetics – Introduction. Basic Sounds of English. |
| 12 | 2 | Phonetic transcription. Rules of Pronunciation. Problem Sounds. |
| 13 | 2 | Syllables. Word Stress – weak forms. |
| 14 | 2 | Sentence Stress – sentence rhythm. Intonation. |
| 15 | 2 | General uses of tone. |
| 16 | 2 | Effective Speaking – Introduction. Paralinguistic Features. |
| 17 | 2 | Manipulating Paralinguistic features. Barriers to Speaking. |
| 18 | 2 | Types of Speaking – Persuasive Speaking and Public Speaking. |
| 19 | 2 | Drafting the speech. |
| 20 | 2 | Listening and Speaking – Conversations and types of conversations. |
| 21 | 2 | Conversation practices. |

| 22 | 2 | Telephonic Conversation and Etiquettes. |
|----|---|------------------------------------------|
| 23 | 2 | Dialogue Writing – Situational Dialogues. |
| 24 | 2 | Effective Presentation Strategies – Introduction and Planning. |
| 25 | 2 | Outlining and Structuring. Speech Delivery – Introduction. |
| 26 | 2 | Nuances of Delivery. Guidelines for effective speech delivery. |
| 27 | 2 | Controlling nervousness and stage fright. Visual Aids in presentation. |
| 28 | 2 | Applications of MS – PowerPoint. |
| 29 | 2 | Interviews – Introduction, Objective and Types. |
| 30 | 2 | Job Interviews. Stages of Interview. |
| 31 | 2 | Factors responsible for failure in Interviews. |
| 32 | 2 | Overcoming nervousness – The Rowboat Technique. Telephonic Interview. |
| 33 | 2 | Media Interviews, Press Conferences. |
| 34 | 2 | Group Communication – Introduction, Forms and use of body language in GD. |
| 35 | 2 | Discussions and Counselling. |
| 36 | 2 | Group Discussions – Organizational GDs |
| 37 | 2 | GD – As a part of selection process. Approach to topics and case studies. |
| 38 | 2 | Meetings – Purposes, Preparation and participation. |
| 39 | 2 | Conferences, Symposia, Seminars, Conflict Resolutions. |
| 40 | 2 | Negotiations. |
| 41 | 3 | Reading – Reading and Interpretation. Inferring Meanings – lexical and contextual. |
| 42 | 3 | Intensive and Extensive Reading. Critical Reading. |
| 43 | 3 | Reading Comprehension. |
| 44 | 3 | Reading Techniques – Techniques for good comprehension. Predicting the Content. Understanding the gist. SQ3R Reading Technique. |
| 45 | 3 | Technical Writing – Introduction and Language. |

| 46 | 3 | Elements of Style. Techniques for good Technical Writing. |
|----|---|---|
| 47 | 3 | Words, phrases and sentences – Introduction. Right words and phrases. |
| 48 | 3 | Sentence – Types and construction of sentences. |
| 49 | 3 | Paragraphs and Essays – Introduction. Paragraph Construction. Paragraph Length. |
| 50 | 3 | Paragraph Patterns and Types. Writing the first draft. |
| 51 | 3 | Essays – Types and Characteristics. |
| 52 | 3 | The Art of Condensation – Introduction. Precis Writing – Steps. |
| 53 | 3 | Letters, memos and e-mail – Introduction. |
| 54 | 3 | Elements and Formats of Letters, memos and e-mail. |
| 55 | 3 | Types of Letters – Layout and Format. |
| 56 | 3 | Resume – Elements, layout. |
| 57 | 3 | Memos and e-mails. |
| 58 | 3 | Reports – Introduction, characteristics and categories. |
| 59 | 3 | Reports – Format, Prewriting and Structure. |
| 60 | 3 | Technical Proposals. |
| 61 | 3 | Research Paper Writing. |
| 62 | 3 | Dissertation and Thesis Writing. |
| 63 | 3 | Instructions, Manuals and Technical Descriptions. |
| 64 | 3 | Referencing and Styling – Bibliography, Referencing, Style Manuals, Indexing and Footnotes. |
| 65 | 4 | Modern Communication Media – Introduction. |
| 66 | 4 | Technology based Communication Tools. |
| 67 | 4 | Positive and Negative Impacts of Tech-based Communication. |
| 68 | 5 | Vocabulary – Synonyms and Antonyms. Confusable words. |
| 69 | 5 | One-word substitutes, homophones, eponyms, phrasal verbs. |
| 70 | 5 | English Grammar – Basics. |

**Text/Reference Books –**

1. Technical Communication – Principles and Practice, 2nd edition, Meenakshi Raman, Sangeeta Sharma, Oxford Publications.
2. Communication Techniques – Dr. N Padmasree, Dr. Leela Vyas, Mukesh Yadav, Neelkanth Publications.
3. Business Communication – Harvard Business Essentials. Harvard Business Publishing.

**Assessment Methodology –**

1. Online quiz through Google forms after every chapter.
2. Practical exam in lab where they have to write various formal documents at a very basic level like formal e-mail, analytical reports, descriptive reports, manuals, articles, sample research articles etc. once a week.
3. Assignments – 1 from each unit.
4. Midterm subjective paper where they have to write sample formal e-mail, analytical reports, descriptive reports, manuals, articles, sample research articles.
5. Final paper at the end of the semester subjective.

**Teaching and Learning Resources unit-wise –**

**Unit – 1**

Online reading: https://www.skillsyouneed.com/ips/interpersonal-communication.html
https://pressbooks.bccampus.ca/technicalwriting/part/techcomm/
http://www.technicalreportwriting.org/visual-aids-3289
Video Tutorials: https://www.youtube.com/watch?v=rCaHCG2ETZA
https://www.youtube.com/watch?v=RIzGQKxfYsI
https://www.youtube.com/watch?v=j6LufgcHq9g
Sample Quiz:
https://courses.lumenlearning.com/interpersonalcommunicationxmaster/chapter/quizzes/
https://www.techamitraj.com/2021/07/technical-communication-mcq-question.html

**Unit – 2**

Online Reading:
https://www.experis.com/en/insights/articles/2021/05/25/20-tips-for-great-job-interviews

https://www.liquidplanner.com/blog/10-tips-to-make-the-most-out-of-your-business-meetings/

https://authorservices.taylorandfrancis.com/academic-conference-tips/

Video Tutorials: https://www.youtube.com/watch?v=JMOOG7rWTPg

https://www.youtube.com/watch?v=Qp4HjYuy56g

https://www.youtube.com/watch?v=YY2yjEEoB3U

Sample Quiz: https://www.sanfoundry.com/professional-communication-questions-answers-group-discussions/

https://quizizz.com/admin/quiz/5c6d7922210b61001bd4271e/minutes-of-meetings

https://researchautism.org/quiz-test-your-interview-skills/


## Unit – 3

Online Reading: https://success.oregonstate.edu/learning/reading

https://www.aresearchguide.com/4format.html

https://www.researchgate.net/publication/308786787_A_Manual_for_Referencing_Styles_in_Research

Video Tutorials: https://www.youtube.com/watch?v=h1u7C6bMNnk

https://www.youtube.com/watch?v=S47RIVkr978

https://www.youtube.com/watch?v=ALhp6vCauVo

Sample Quiz: https://www.english-exam.org/IELTS/ielts_reading/

https://www.proprofs.com/quiz-school/story.php?title=writing-research-papers


## Unit – 4

Online Reading: https://pscnotes.in/modern-means-of-communication-full-list/

https://www.proofhub.com/articles/team-communication-tools

https://technicaltoday.in/impact-of-technology-on-communication/

Video Tutorials: https://www.youtube.com/watch?v=2eYhdds5OnQ

https://www.youtube.com/watch?v=HVFpvtjTHXQ

https://www.youtube.com/watch?v=D3mNn0btW6s

Sample Quiz:

https://quizizz.com/admin/quiz/5bea7a3ab292ff001ab0b331/modern-communication

https://quizizz.com/admin/quiz/5d22531da54b3a001d959170/obj-48-identify-communication-tools
https://global.oup.com/us/companion.websites/9780199859931/student/chapter7/stests/quiz/

## Unit – 5

Online Reading: https://byjus.com/govt-exams/synonyms-and-antonyms-list/
http://prhs.pasoschools.org/jmount/handouts/Grammar/confusables.pdf
https://www.englishclub.com/vocabulary/phrasal-verbs-list.htm
Video tutorials: https://www.youtube.com/watch?v=bBWm3-mxL1U
https://www.youtube.com/watch?v=w1FlZIwy1CM
https://www.youtube.com/watch?v=e7tZSwasnR0
Sample Quiz: https://www.britannica.com/quiz/antonyms-and-synonyms
http://guidetogrammar.org/grammar/quizzes/notorious3.htm
https://www.espressoenglish.net/can-you-pass-this-phrasal-verbs-quiz/

Roll No.

Total No of Pages: 4

3E1102

**3E1102**
**B. Tech. III - Sem. (Main) Exam., Dec. - 2018**
**HSMC**
**3AN1 – 02 Technical Communication**
**All branches**

Time: 2 Hours

**Maximum Marks: 80**

*Instructions to Candidates:*

*Attempt all five questions from Part A, four questions out of six questions from Part B and two questions out of three from Part C.*

*Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.*

*Use of following supporting material is permitted during examination. (Mentioned in form No. 205)*

1. NIL                                                      2. NIL

## PART – A

**(Answer should be given up to 25 words only)**                    **[5×2=10]**

**All questions are compulsory**

Q.1  Define technical communication.                                            [2]

Q.2  What are technical manuals?                                               [2]

Q.3  What is a strategy for effective writing?                                   [2]

Q.4  Why is a meeting agenda important for a productive meeting?                [2]

Q.5  Describe what is a technical project proposal.                             [2]

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# PART – B

### (Analytical/Problem solving questions)

[4×10=40]

### Attempt any four questions

Q.1 Describe technical communication skills (Listening speaking, writing and reading) and their importance for engineers. http://www.rtuonline.com [10]

Q.2 Describe strategies for organization of information and information design. [10]

Q.3 Explain methods to improve vocabulary and linguistic abilities. [10]

Q.4 Find the error and rewrite the sentence correctly- [10]

(1) We all swim at the beach yesterday.

(2) They hadn't scarcely enough feed for their cattle.

(3) The animals has damaged my plants.

(4) The perfume is for your sister and yourself.

(5) My father has been sleep all day.

(6) Mother has cook new dishes.

(7) Not only Ram but only Sham is my friend.

(8) A bus runs passed our house.

(9) Neither Peter or James can sing well.

(10) He drove fast so he might arrive early.

Q.5 Describe the technical writing process in detail. [10]

Q.6 Discuss the types, structure and writing formats of technical articles. [10]

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# PART – C

## (Descriptive/Analytical/Problem Solving/Design Questions) [2×15=30]

## Attempt any two questions

Q.1 You are Anand / Arti of 18 Model Town, New Delhi. You have seen an advertisement in the Hindu for the post of Engineer in an MNC. Apply for the job with complete resume. [7.5+7.5=15]

Q.2 Describe Technical reports, mentioning types and characteristics of technical reports in detail. [5+5+5=15]

Q.3 Make notes on the contents of the passage given below, giving a suitable title. Make a summary of the passage. [7.5+7.5=15]

You need excellent verbal and written communication skills. Depending on the industry in which you work, the purpose of your content and the people who are using it, you may produce a lot written (text – based) documentation or focus more on images, simulations, videos and flowcharts. Regardless of the type of output, you need to be able to question subject matter experts (SMEs). You also need to be able to distil what SMEs tell you into information at an appropriate level of complexity (both in terms of level of content and language) for the people needing to use it.

The amount of subject matter knowledge you need as a technical communicator varies greatly depending on both the industry and the intended audience. For example, if you are communicating about consumer products for consumers, you are probably in a good position to understand what they need. In contrast, if you are writing for people working

in the pharmaceutical, nuclear or software development industries, you may need some specialist knowledge of the appropriate area so you can pitch your communication at an appropriate level. Technical communicators use a number of software applications to do their work. While no – one can know every application in depth, a general understanding of the types of application out there and what they are used for is useful. Detailed knowledge tends to grow as you use an application, and you can also attend tool – specific training courses or (in many cases) download trial versions to play.

The sort of person who tends to make a good technical communicator is one who has an eye for detail but is also able to see the bigger picture. He or she will be curious – about how something works, how to use it, how to use it more effectively or more efficiently. Being able to see things from someone else's perspective is good – what is important to them, why are they doing what they are doing, what do the need to know. Finally, tenacity. You may have questions, and you need to keep asking them until you get an answer you can use. You may not understand all of the answer, but enough to be sure that it will make sense to those who should.

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