*Technical communication* is a generic term for all writing and speaking responsibilities required to communicate ideas in professions like business, industry, or in other settings. It is particularly associated with technology, engineering, science, health professions, and other fields with specialized vocabularies. In includes any form of communication that exhibits one or more of the following characteristics:

1. Communicating about technical or specialized topics, such as computer applications, mechanical tools, medical procedures, or environmental regulations.
2. Communicating by using technology, such as web pages, help files, or social media sites.
3. Providing instructions about how to do something, regardless of how technical the task is or even if technology is used to create or distribute that communication.

Technical communication, also called technical writing, is about expressing a subject or technology to a specific audience in an easy to understand language and user-friendly format. Technical writing focuses on audience as it conveys specific information about a specific technical subject to a specific audience for a specific purpose. It is important for an effective technical writing to know about the audience, and their needs and expectations.

As the name suggests, technical writing is a combination of technology and writing. A combination of both writing talent and technical aptitude is essential to make a good and successful technical writer.

An effective technical communication requires the following skills:

* **Language Skills:** Language is the basic asset of a technical writer. One should have a good command over the language, know the basic rules of grammar and punctuation, and be able to express ideas clearly.
* **Writing skills:** One of the main characteristics of technical writing is making scientific and technical information easily understandable to a non-technical audience. The writing is about:

1. Writing your thoughts clearly and concisely.
2. Understanding and expressing what your readers need to know
3. Determining the need of graphics and preparing illustration, flowcharts, and taking screenshots.
4. Deciding which information needs to go into the document and which should not
5. Interpreting and translating the complicated information in as simple, clear, accurate, and easy to understand language and format
6. Finalizing the style, format, and templates
7. Deciding the flow of information—organizing and structuring information.
8. Expressing clearly the knowledge, ideas, and concepts to the users.

* **Ability to Understand the Subject:** More than the knowledge of a technical subject, it is important to understand the ability to understand the subject and write about it. To write technical documents, a fundamental understanding of the subject is required (software, engineering, accounts, inventory, law, medicine, science, health, business, etc.) to express it in writing.
* **Interpersonal Skills:** An effective technical writing demands consultations with the team and communicate with the customers to understand their expectations. Some of the interpersonal skills are:
* Strong communication (written and spoken) skills.
* Work in cooperation with individuals from different teams.
* Listen effectively.
* Respond promptly, clearly, and appropriately to situations.
* **Ability to Analyze:** The key word for producing good technical documentation is ANALYZE. Effective writing should have the ability to analyze the following aspects effectively:
* Demands of the documentation project
* Information required for the documents
* Users (the audience) and their requirements
* Tools to be used for the documentation project
* Time taken to complete the job/ project on time
* Effective ways to communicate the information to the users.
* **Flexibility:** For writing a document, the writer should be:
* Flexible enough to move from a large project to a smaller one or the vice-versa.
* Ready to adapt to the new tools, processes, styles, guidelines, technology, etc.
* Assertive, yet cool and in control when dealing with the people.

**WRITING SHORT REPORTS**

A report contains specific information and evidence presented, analysed and applied to a particular problem for a clear purpose and to a particular audience. The information is presented in a clearly structured format making use of sections and headings so that the information is easy to locate and follow.

The report may outline the purpose, audience and problem that the report must address, with any specific requirements for format or structure.

**Scope of a report**

Report writing is a factual process. One has to be very clear and concise and specific, to the point. A report has several sections and a particular kind of structuring. A report sets the objectives; and analyses a situation or problem, often making recommendation for future action and discussing its findings.

A reportgives a road map of the project. The scope of reports depends on three key factors: intended audience, purpose and the type of information to be communicated. For example, in technical reports, the degree of technicality will depend on the reader’s knowledge of the concepts.

**Some types of reports:**

* **Technical reports** **-** In disciplines like Engineering, Information Technology, Commerce, Accounting and Finance, technical writing is involved. Assignments are set in the form of a problem or a case study. The students research the problem, and present the results of the research in a report format.
* **Field reports-** These are common in disciplines such as Law, Industrial Relations, Psychology, Nursing, History and Education. Such reports require the student to analyse his/ her observations of events in the real world in light of theories studied in the course.

For example, a court observation report, an observation report of a patient for psychology or nursing, a history site report, and a teaching report for education, etc.

* **Scientific reports-** (also called laboratory reports) are common in Sciences and Social Sciences. These reports use a standard scientific report format describing methods, results and conclusions to report upon an empirical investigation.
* **Short report:** A short report is a sharp and concise document. It is a brief written communication for a particular purpose, and a definite and specific audience. For example, a weekly or monthly financial or production report, or a proposal for a project or the improvement on the process, etc.

Short reports can be written as a letter or a memo.

* **Memo**: written within department or company.
* **Letter**: written for outside department or company.

Short reports are usually of one or two pages; however, it can also be of several pages.

**Parts of short report:**

There are usually four parts of a short report.

1. *Summary or abstract*
2. *Background (optional)*
3. *Main part (main concepts)*. It may include a chart, diagram, or attachments.
4. *Conclusion/ recommendation*, depending on the subject/ purpose of the report.

**Format of a Short Report**

**Memorandum**

*Date:*

*To:*

*From:*

*Subject:*

*Attachments*: if any (name of file with no. of pages)

cc: (names and titles of the people to receive the copy)

*Summary*: Brief details of the problem, without giving details of the report.

*Background*: give only if required to explain the history. Give history of the project, idea proposal etc. write problem, past solutions, people involved in it so that everyone involved knows the progress of the project.

*Body or main part*: write a description of the project, keeping in mind the topic, subject, contents etc.

*Conclusion/ recommendation*: either of the two. Recommendation is given when asked for opinion about a problem or issue. Conclusion is given when asked to study a problem, find out facts and then report what happened. No need to suggest what should be done.

**OUTLINE DEVELOPMENT**

Outline is the main shape of something, without any details. Creating an outline is a good step to take while writing our paper. It allows us to think of new ideas and make sure the document will be organized, focused, and supported.

It is easier to write from an outline instead of starting from a blank page. Writing an outline most commonly takes place before beginning to write or doing research. This process can also take place during or after writing the paper to make sure all points are organized and make sense.

Outlines are a necessary part of writing. Outlines are like a road map. They give us direction; they tell us where to go and how. Working without an outline is like trying to get from Delhi to Allahabad and only knowing we need to go the West.

In technical writing, outlines can serve multiple purposes such as it helps the writer organize ideas and evidence, and to communicate plan of development clearly to the person who has the authority to move the project forward.

**Steps to create an outline of the report:**

* Indicate main idea/ topic at top.
* Name and number the major sections of the report at the left margin
* Add details for each section underneath the major section. Write in complete sentences when presenting details.
* Indent the details related to each section underneath the names of major sections.
* Alternate between numbers and letters to indicate different levels: I. A., 1. a., etc.

Before beginning a detailed, formal outline, consider the following points:

1. Do preliminary reading necessary to construct a rough outline.
2. Develop a rough outline with major section headings for the report being considered.
3. Identify information sources, and make a bibliographic citation for each.
4. Take notes as you read, determining in which sections each source material might best work.
5. Provide in-text citations as you develop your outline. Doing so will help document sources thoroughly and ethically at all stages, and will make your job easier when you are drafting your report.
6. Change or add extra detail to the outline as the research process continues.

After completing sufficient research to develop ideas, a formal outline can be used to develop a draft of the report. The final report might be organized differently and even some information deleted or new sections added. It is a work in progress. The rough outline shows us which specific topics to gather information on and which ones to ignore.

**Sample outline:**

|  |  |
| --- | --- |
| *Rough outline for a report on light water nuclear reactors* | *Questions generated by the outline* |
| 1. **Pressurized Water Reactors**    1. Major Components    2. Basic Operations | What are the main differences? What are the main components? What are the materials? Design? Dimensions? How many are in operation? Where Who designed them? |
| 1. **Boiling Water Reactors**    1. Major Components    2. Basic Operation | How do they differ from PWRs? What are the main components? What are the materials? Design? Dimensions? Designers? Where used? How many? |
| 1. **Safety Measures**    1. Pressurized Water   reactors   * 1. Boiling Water Reactors   2. Role of the Nuclear Regulatory Commission | What are the chief dangers? What are the dangers and safety measures associated with PWRs? What are the dangers and safety measures associated with BWRs? How does the NRC regulate nuclear power plants? What standards does it enforce? How? |
| 1. **Economic Aspects of Light Water Reactors**    1. Construction Costs    2. Operation and   maintenance Costs   * 1. Operating Capacity | What are the construction, operation, maintenance, and fuel costs? What about the availability of fuel? How do these costs compare to output? How do the PWR and the BWR compare in terms of costs and output? How much electricity can a LWR generate at full capacity? |

**CURRICULUM VITAE (CV)/ RESUME**

A **resume** is a one-to-two page document presenting key facts about your professional experience, educational background, and skills. A **resume** is used for job search; **CV** (Curriculum Vitae) is a longer document that details the whole course of your career. CV is used foracademic purposes.

Creating your résumé is the first step to getting a job.

A résumé is a one-page summary of your work and educational experiences. Employers match your résumé against their job openings to evaluate if you'd be a good fit. As such, it's important to make your résumé a good representation of yourself.

Following are step-by-step instructions on how resume should be prepared:

1. **Decide which type of RÉSUMÉ you want.**

There are three types of résumés: ***chronological, functional*** and ***combination.*** For multiple jobs, preparing more than one format of résumé is preferred.

* Chronological résumé is the most traditional format and lists experiences according to the order in which they took place.
* Functional résumé is a format résumé that lists your experiences according to skill. This is the format to use if you're changing career direction (and lack direct work experience). Because it displays your skills first, your work experience, or lack thereof, is not the main focus.
* Combination résumé format combines the best aspects of both – chronological and functional styles. Be careful with length for this format; the résumé should not be more than two page.

1. **Create a HEADER.**

A header should include your name, phone number and email address.

* Use a phone number
* Make sure your email address is professional. If your current email address, for example, is awabaazboy@mail.com or independentgirl@inbox.com, it's time to set up a new email, such as ramsingh@mail.com or [basant99@inbox.com](mailto:basant99@inbox.com).

1. **Write a SUMMARY.**

In one or two sentences, summarize your work experience and relevant skills. Keep it assertive and simple.

* The summary can be useful to explain why you're applying for a role that is a departure from your career path.
* You don't have to include a summary, especially if your experience speaks for itself and is relevant to the jobs you're applying for.

1. **List your EXPERIENCES or SKILLS.**

**For Chronological/Combination Résumé, list your EXPERIENCES**

Starting with your most recent or current job, list your previous work experiences.

* This section shows nature of your past work, when and where. State specific accomplishments for each position or job.
* This section might run over a page, so be selective about what you include.
* Pick experiences most relevant to the position you seek. e.g., full-time or part-time work, summer training/ jobs, temporary jobs, internships, fieldwork or special project jobs.
* Don't worry whether your experiences are "good enough." Employers admire people who have worked hard in a variety of positions.
* Always start each achievement with an accomplishment verb, like accelerated, achieved, expanded, influenced, solved, maintained, generated, effected, advised, controlled, trained or utilized.
* Don't worry if there are gaps in the timeline, but keep everything in chronological order, with most recent jobs at the top.

*Examples*:

1. *Equal Opportunity Cell, University Of Delhi, Delhi*

July 2010–January 2014. (Part-time). Tutored students in functional English, in English Remedial Program for Equal Opportunity Cell-DU, Delhi.

1. *Department of Linguistics, University of Delhi, Delhi*

June 2015–September 2017- Taught Hindi to students of South Korean University, in Hindi Teaching Program.

**For Functional/Combination Résumés, list your SKILLS**

In this section, you can show your strengths and individuality. State each skill and then back it up with a two to three line explanation of how you learned that skill or why you believe you have it. Make these entries short, clear and to the point.

* List skills that are most relevant to the job you seek. Think about what the employer is looking for in relation to what you've done and who you are as a person.
* List computer programs you known and have experience; proficiency is seen as added value.

*Examples*:

* **Self-Motivated**: Proactively organized volunteers to assist with distribution of food for homeless during pandemic in Mathura.
* **Bookkeeping**: Maintained accurate, detailed inventory reports at Department library and subsequently won ‘Top Librarian Assistant’ award three months straight from University Librarian.

1. **List Your Activities.**

List activities in which you have participated and include what your specific role was in each.

* Note membership or leadership positions in clubs, organizations of any kind, athletic teams, community organizations and so on.
* If you've had an interesting job unrelated to the field you're pursuing—such as reading to blind children or teaching to children living in slums—add it here. Employers are always looking for people with diverse backgrounds to work for them.

*Examples*:

* Cricket Team: Team Captain, Final Year. June 2019–March 2020.
* Drama Club: Acted in plays- "Hamlet" and "Cinderella." Even Sem 2019 and 2020.

1. **List Your Education.**

* List the institutions you've attended, starting with the most recent one. Include details such as GPA or percentage, class rank or special awards.
* Add any other educational experiences, such as training programs, summer courses, seminars and so on.

*Examples*:

* Dept of Linguistics. University of Delhi, Delhi. M.A. 68%. June 2018.
* Deen Dayal College, University of Delhi, Delhi. B.A. 2015. 64%.

1. **List any Awards you’ve won and when you won them.**

When you've been recognized by someone else, you should let potential employers know about it. But you shouldn't worry if you haven't received any awards; just skip this section.

*Examples:*

Rotary Club, Delhi. Honorable Mention, donated blood 6 times in 2 years. May 2018.

1. **List Your Personal Interests.**

* Show you're a well-rounded person who people would want to know and work with.
* Employers often use this section at the start of an interview to break the ice.
* Casual interests are better not to list (e.g., napping, watching reality TV, gossiping). This is really about highlighting hobbies that have helped you grow as a person.
* If you're having trouble coming up with interests, or feel your résumé is already too long, feel free to leave it off.

*Examples:*

* Ceramics, camping, reading, soccer, automotive repair, carpentry

**Submitting Your Résumé**

1. **Saving Your Résumé as a PDF:**

Most employers prefer to receive résumés in the Portable Document Format (PDF).

1. **Emailing a Résumé:**

When emailing a résumé, you will likely be asked to send it as an attachment.

1. **Posting a Résumé:**

You can submit your résumé to a jobs resource website PDF is the common format here as well.

1. **Using key words:**

When submitting your résumé online, use job-specific keywords. Employers often search résumé banks for special words or requirements specific to a job description.

Including keywords in the summary, experience, skills and awards sections of your résumé will increase your chances of being flagged as a potential match. You should also use such keywords in the title and brief description of yourself that most job sites request.

Keywords tend to be nouns that are industry-specific qualifications, skills or terms. Some keyword examples include degrees or certifications, job titles, computer lingo, industry jargon, product names, company names and professional organizations.

And **lastly**, if you're posting your résumé or portfolio to a job website, be sure to conceal your contact information by activating the privacy settings offered on most job sites or by providing only an email address. Posting personal information on the web could attract unwanted attention.

**Printing Your Résumé**

It's a good idea to have printed copies of your résumé on hand when you go on interviews. Start with a well-formatted document and make sure it has been proofread. You also should make sure it's the same version that you submitted as part of your application.

**APPLICATION/ COVER LETTER**

Letter of application is a formal written request, for a job or a place in an institution, society, club etc. It is also called cover letter - a formal written request for a job, admission, a sales letter, a marketing tool etc.,

The main objective of a Job Application/ Cover Letter is to get a call for an interview. It must be written well enough to attract the attention and interest of the person with the power to recommend or grant one.

Before writing a job application, it is important to reflect on the skills that you have to offer. Analyzing job advertisements or course descriptions effectively will enable you to match your skills to their requirements. A letter of application should complement not duplicate, a résumé. The letter of application is often the earliest written contact with a potential employer or creating a critical first impression.

**Guidelines to write a Cover Letter**

* **Font**: Use traditional font such as Times New Roman, Arial, or Calibri. The font size should be between 10 or 12 points.
* **Format**: A letter of application should be single-spaced with a space between each paragraph. Use about 1" margins and align text to the left, which is the standard alignment for most documents.
* **Length**: A letter of application should be about one page long.

**Organizing a Letter of Application/ Cover Letter**

1. **Header:** Should begin with both your and the employer's contact information followed by the date. If you have contact information for the employer, list it below your contact information. If not, leave this section out.
2. **Contact Information:** The first section of application should include your contact information:

Name

Address

City, State, Pin Code

Mobile or Home Number

Email Address (optional)

1. **Salutation:** Follow the salutation with a colon, a space, and then start the first paragraph of your letter. Example:

Dear Search Committee:

(First paragraph of letter)

Salutation examples for letters of application/ employment-related correspondence:

Dear Dr./ Mr. Ms

To whom it may concern

Dear Human Resources Manager

Dear Sir or Madam

1. **Introductory Paragraph:** Begin by stating the job for which you are applying. Briefly mention how your skills and experience match the company and/or position; this will give the employer a preview of the rest of your letter.
2. **Body Paragraph(s):** In a paragraph or two, explain why you are interested in the job and why you make an excellent candidate for the position. Mention specific qualifications listed in the job posting and explain how you meet those qualifications. Do not simply restate your résumé, but provide specific examples. You can either write about these specific examples in complete sentences or in a bulleted format.
3. **Closing Paragraph:** Conclude your letter of application by thanking the employer for considering you for the position and state that you would like to interview and/ or discuss employment opportunities.

A list of letter closing examples appropriate for applications and employment related correspondence are as under:

Sincerely

Sincerely yours

Regards

Best regards

Kind regards

Yours truly

Most sincerely

Respectfully

Respectfully yours

Thank you

Thank you for your consideration

Follow the closing with a comma, four spaces, and then your typed name. For example:

Best regards,

Signature: Sign your name between the closing and your typed name.

Your Name

**Sample Letter of Application Format**

Name

Address

City, State, Pin Code

Phone Number

Email Address (optional)

Date

Contact’s Name

Contact’s Title

Organization’s Name

Address- City, State, Pin Code

Salutation and Contact’s Name

Introductory Paragraph

Body Paragraph(s)

Closing Paragraph

Complimentary Close

Signature

Typed Name