


Technical & Business Writing

Instructor: Sehar R Mirza

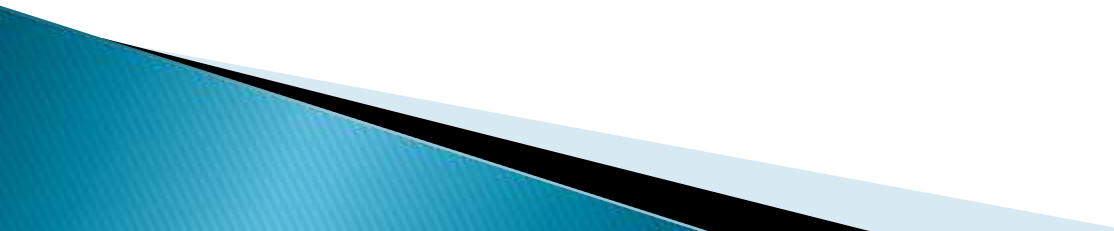
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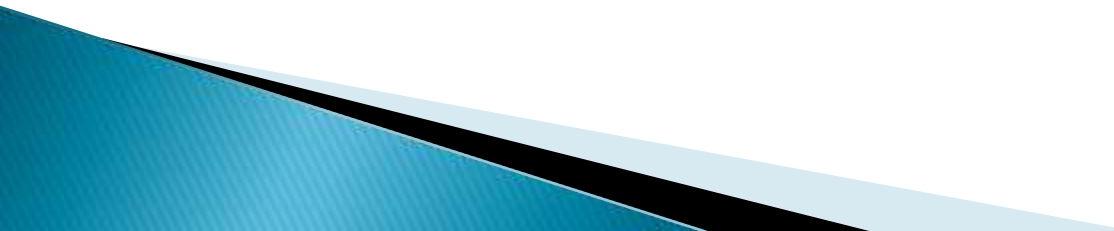


Goals and Objectives

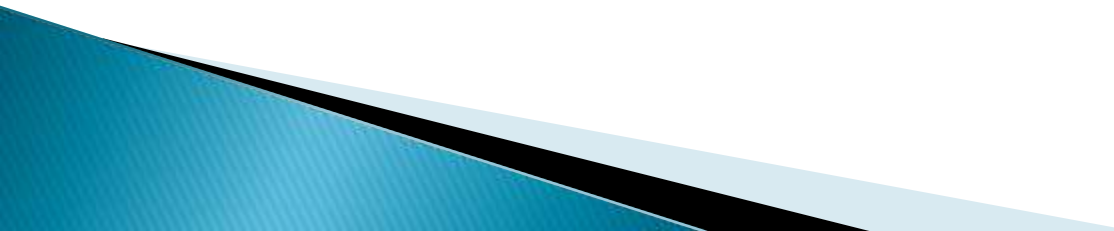
- ▶ Equip students with such writing skills as may form useful foundation to respond with proficiency to job-seeking situations, initial office correspondence/tasks or to pursue higher education/research at Postgraduate Level.

Recommended Reading

- ▶ High school English grammar and composition by wren and martin
 - ▶ Communication for Engineering students by Davies J.W
 - ▶ Reports, Technical Writing and Specifications by Glidon H.K, Mcgraw Hill Book Company, London.
 - ▶ Technical Writing by Steve M. Gerson.
 - ▶ Reporting Technical Information by Kenneth W. Houp, ThomasE. Pearsall, Tebeaux and Dragga Tenth Edition.
 - ▶ Technical Communication by Rebecca E. Burnett.
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- ▶ Details of Syllabus
 - ▶ 1. Technical Writing:
 - ▶ a. 7Cs of Tech Communication.
 - ▶ b. Importance and purpose of technical report writing
 - ▶ c. Characteristics and style of technical report writing
 - ▶ 2. Basics of academic writing
 - ▶ a. Difference between academic and technical writing (class discussion)
 - ▶ 3. Research Writing Skills:
 - ▶ a. Research proposal: style, content, language, form, consistency and clarity in writing
 - ▶ b. Introduction to in-text citation methods and bibliography in academic writing
 - ▶ 4. Business writing
 - ▶ a. Memorandum
 - ▶ b. Short report and its format
 - ▶ c. Planning and writing long reports
 - ▶ d. Letter Writing, Interim progress report and personal activity report
 - ▶ 5. Presentation skills and final project presentations
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Formative and Summative Assessment

- ▶ Classroom tasks and activities
 - ▶ One Hour Tests
 - ▶ Assignments/ Presentation
 - ▶ Quizzes
 - ▶ Final Exam
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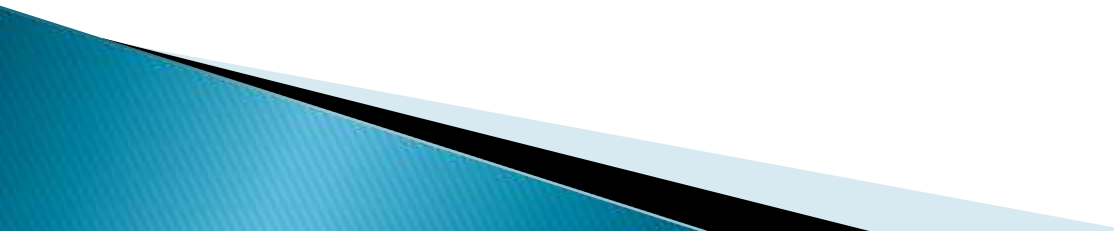
Course Learning Outcome (CLOs):

No	CLO	PL0	Level of Learning
	1. Describe tech writing, its importance purpose and how it is different from ordinary writing	P10	A1
	2. Discuss the style, content, language, form, clarity and consistency in technical writing by analysing research proposals, technical papers and project reports.	P10	A2
	3. Write short and long reports, cover letters and other Official letters	P10	A2

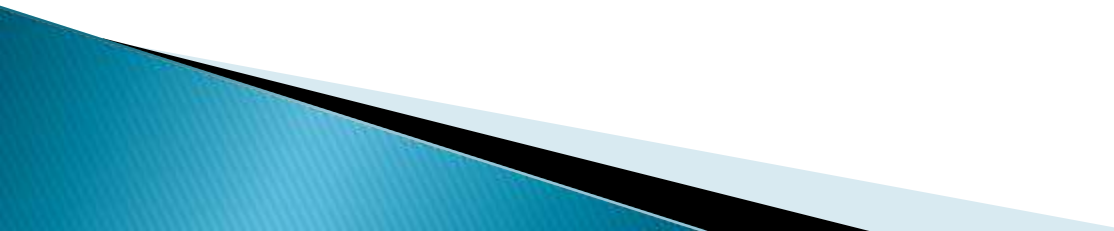
Program Learning Outcomes

PLO 10 & 12

PLO 10: Communication: An ability to communicate effectively, orally as well as in writing, on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.



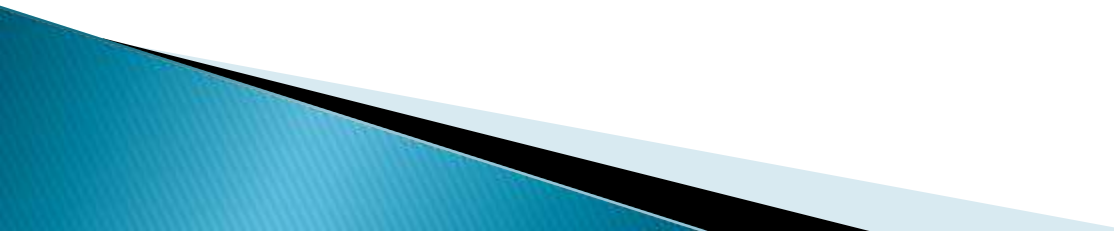
Technical Writing

- ▶ Technical writing is communication written for and about business and industry, focusing on products and services: how to manufacture them, market them, manage them, deliver them, and use them.
 - ▶ Technical writing is written in the work environment for supervisors, colleagues, subordinates, vendors, and customers.
 - ▶ Technical writing, which must be understood easily and quickly, includes:
 - ▶ memos and e-mail
 - ▶ letters
 - ▶ reports
 - ▶ research proposals
 - ▶ PowerPoint presentations
- 

why do we need it?

- ▶ “Unclear writing costs American businesses real money—over one billion dollars a year, according to one estimate...

(“Why Dick and Jane Can’t Write on the Job...and How to Help Them,” Janet Van Wicklen, American Society of Training and Development, 2000)



Technical Writing is different from other types of written communication

- ▶ *“The fundamental purpose of scientific discourse is not the mere presentation of information and thought but rather its actual communication. It does not matter how pleased an author might be to have converted all the right data into sentences and paragraphs; it matters only whether a large majority of the reading audience accurately perceives what the author had in mind.”*

George Gopen and Judith Swan The Science of Scientific Writing



- ▶ Technical writing is not literature; it's neither prose which recounts the fictional tales of characters nor poetry which expresses deeply felt
- ▶ Technical writing is neither an expressive essay narrating an occurrence
- ▶ Technical writing is not journalism, written to report the news.
- ▶ Technical writing does not focus on poetic images, describe personal experiences, or report who won the basketball game.
- ▶ Instead, technical writing is:
 - ▶ —an instructional manual for repairing machinery
 - ▶ —a memo listing meeting agendas
 - ▶ —a letter from a vendor to a client
 - ▶ —a recommendation report proposing a new computer system

7 Cs OF Communication

- ▶ COMPLETENESS
- ▶ CONCISENESS
- ▶ CONSIDERATION
- ▶ CLARITY
- ▶ CONCRETENESS
- ▶ COURTESY
- ▶ CORRECTNESS

COMPLETENESS

Business message is complete when it contains all facts the reader or listener needs for the reaction you desire.

As you strive for completeness, keep the following guidelines in mind;

- Provide all necessary information
- Answer all questions asked
- Give something extra when desirable

COMPLETENESS

- ▶ Answer all questions that are asked
- ▶ Give something extra when desirable
- ▶ Check for five Ws & one H
 - Who
 - What
 - When
 - Where
 - Why and
 - How

Provide All Necessary Information

Answering the five W's helps make messages clear: Who, What, When, Where, and Why.

Answer All Questions Asked

Look for questions: some may even appear buried within a paragraph. Locate them and then answer precisely.

Give Something Extra, When Desirable

Use your good judgment in offering additional material if the sender's message was incomplete.

CONCISENESS

1. Eliminate wordy expressions
1. Include only relevant statements
 - be focused
 - Shorten & avoid long explanations
2. Avoid unnecessary repetitions
 - use short forms the second time

Eliminate Wordy Expressions

Examples

Wordy: In about a week's time...

Concise: In a week ...

Wordy: It is a matter of prime importance...

Concise: It is important...

Exercise:

- ▶ Due to the fact that
- ▶ Employed the use of
- ▶ Basic fundamentals
- ▶ Completely eliminate
- ▶ Alternative choices
- ▶ Actual experience
- ▶ Connected together
- ▶ Final result
- ▶ In spite of the fact that
- ▶ In as few words as possible

CONCISE

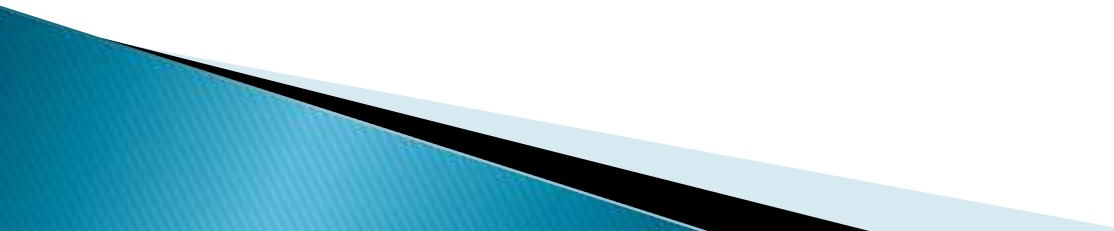
- Due to the fact that
- Employed the use of
- Basic fundamentals
- Completely eliminate
- Alternative choices
- Actual experience
- Connected together
- Final result
- In spite of the fact that
- In as few words as possible
- Because
- Used
- Fundamentals
- Eliminate
- Alternatives
- Experience
- Connected
- Result
- although
- Concisely

Include Only Relevant Material

Poor: The consultant, who was hired from McKinsey, gave a speech that was long and boring.

Better:

Exercise:

- ▶ We hereby wish to let you know that our company is pleased with the confidence you have responded in us.
 - ▶ Whenever we achieve a new goal, there is a rise in morale.
- 

CONSIDERATION



CONSIDERATION

- ▶ Know your audience
- ▶ Define technical terms when first used
- ▶ Let readers know how you can meet their needs.
- ▶ Focus on **YOU** instead of **I & WE**
- ▶ Show reader **benefit & interest**
- ▶ Emphasize on **positive & pleasant**
- ▶ Apply **integrity & ethics**

CONSIDERATION

Reader Benefits

Shape your statements to involve the reader. Strive to develop the “you” attitude.

Instead of this:

Before we can allow you to purchase items on this new account, we must wait two weeks to verify your credit.

Try this:

You may begin making purchases on your new account in two weeks.

Ex.– Write with a ‘you ‘ attitude , it shows consideration

- ▶ I want to send my congratulations for –
- ▶ (...)

Ex –Avoid negative – unpleasant words to show consideration

- ▶ It is impossible to open an account for you today.
- ▶ When you travel on company expense, you will not receive approval for first class fare.

COURTESY



COURTESY

- ▶ Involves being aware of the perspective of others and their feelings.

COURTESY

Suggestions for generating a courteous tone

- ▶ Be sincere , tactful and appreciative
- ▶ Avoid using expressions that offend, irritate, or insult others

Be considerate

Avoid being abrupt or blunt, these negative traits are a common cause of discourtesy.

Tactless, Blunt

Stupid letter; I can't understand any of it.

Considerate, Tactful

It's my understanding...

According to my understanding

Incorporate expressions that show Respect

- ▶ Avoid being offensive

**You failed to
Rubbish
Simply nonsense**

- ▶ Bring courtesy in the following sentence

We don't feel your qualification match our job needs

More courteous

Your qualifications are excellent and show that you've assumed greater levels of responsibility throughout your career. The candidate we are looking for, however, will have a stronger marketing background...

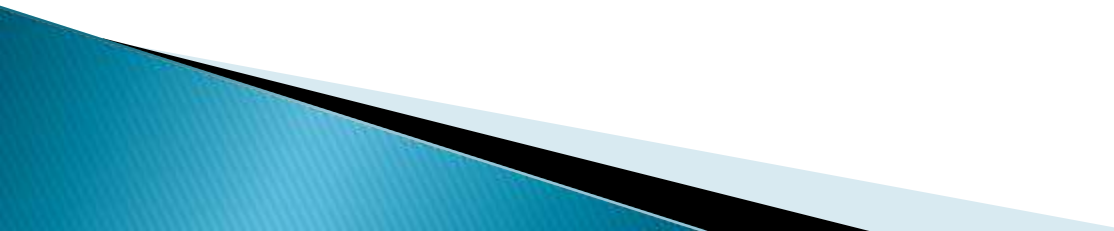
- ▶ ***Maintain a positive tone even when breaking bad news.***

- ▶ Use appropriate language that reflects equal treatment of people regardless of gender, race, ethnic origin, and physical features.

Choose Gender Inclusive Language

- ▶ **Salesman/lady**
Sales person
- ▶ **Manpower**
Workers, Employees
- ▶ **Man-made**
Constructed, Manufactured, Built
- ▶ **Chairman**
Chairperson

Revise the following sentences by adding gender inclusive language

- ▶ If the employee is late, give him one warning.
 - ▶ If the manager files his/her report by Wednesday, he or she will have the revised copy returned to him or her on Friday.
 - ▶ Don't judge someone simply on the basis of his gender or color.
- 

CLARITY



CLARITY

- ▶ Purpose of clarity is to convey your message accurately to reader.
- ▶ Technical documents should convey a single meaning that the reader can understand.

Unclear writing can lead to wrong interpretation

e.g. unclear instruction on how to operate machinery

CLARITY

- ▶ Choose short & familiar words
- ▶ Construct effective sentences and paragraphs by unity of idea and sequencing
- ▶ Include examples, illustrations & visual aids

Note:

- ▶ Clarity must be from readers' perspective.
Don't assume that readers are familiar with previous work or previous reports

Choose precise, concrete and familiar words

Unfamiliar:

After our perusal of pertinent data, the conclusion is that a lucrative market exists for the subject property.

Familiar:

The data we studies show that your property is profitable and in high demand.



Select vocabulary considering the audience

▶ Subsequent	later
▶ Accede	agree
▶ Endeavour	try
▶ Supersede	replace
▶ Disclose	show

CONCRETENESS



CONCRETENESS

- ▶ Communicating concretely means being specific and to the point instead of being vague and non specific
- ▶ E.g. Maxwell isn't good at customer service.
- ▶ Maxwell has the worst customer satisfaction rating in the division at just 58 percent.

(Stated his level of service in terms of the ratings)

Use Specific Facts and Figures

It is desirable to be precise and concrete in both written and oral business communication.

Example

**Vague, General,
Indefinite**

- ▶ **Student GMAT scores are higher.**

**Concrete,
Precise**

- ▶ **In 1996, the GMAT scores averaged 600; by 1997 they had risen to 610.**

CORRECTNESS



CORRECTNESS

- ▶ Correctness in technical writing is the use of proper grammar, punctuation, and spelling.
- ▶ However a message may be perfect grammatically and mechanically but still insult or lose a customer.

- ▶ Select the right level of language for your communication either formal or informal.
- ▶ In technical and business communication formal language is most often used.
- ▶ Check accuracy for figures, facts, and words.

Use the Right Level of Language

► Formal and Less Formal Language

More Formal

Participate

Procure

Endeavor

Less Formal

Join

Get

Try

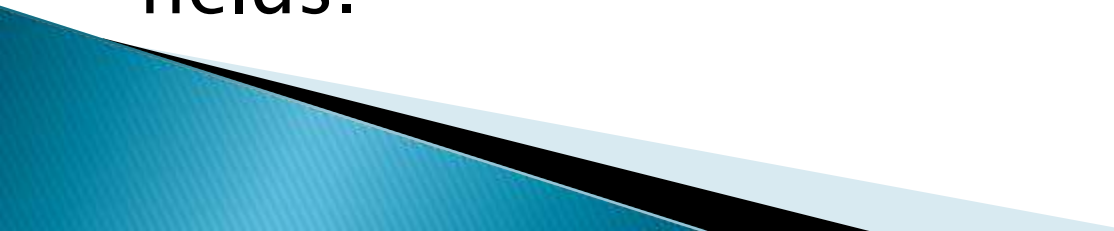
- ▶ <http://www.voiceofengineers.com/2013/08/technical-writing-for-engineers.html>

Technical Report Writing

Importance, Purpose & format




Technical Reports

- Discuss the process, progress and results of a technical or scientific research.
 - Includes in depth experimental details or designs and results.
 - Typically used in science and engineering fields.
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Technical Report and Engineering



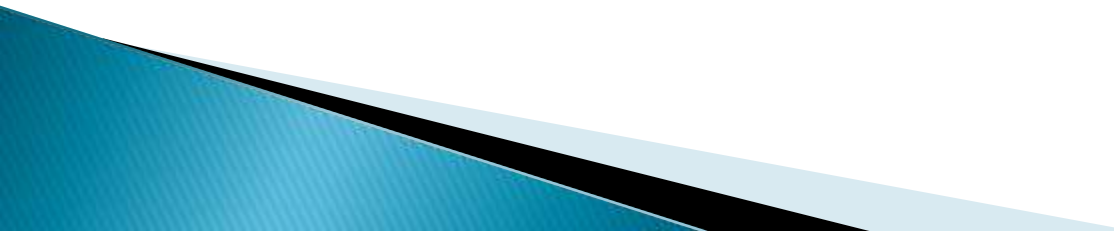
Technical report and Engineering

- ▶ In Engineering, one of the major forms of communication is the technical report.
 - ▶ Professional Engineers write technical reports to explain project information to various audiences.
 - ▶ At university, reports are read by lecturers in order to assess your mastery of the subjects and your ability to apply your knowledge to a practical task.
 - ▶ In the workplace, they will be read by managers, clients, higher officials and the construction engineers responsible for building from your designs.
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Importance of Technical Reports:



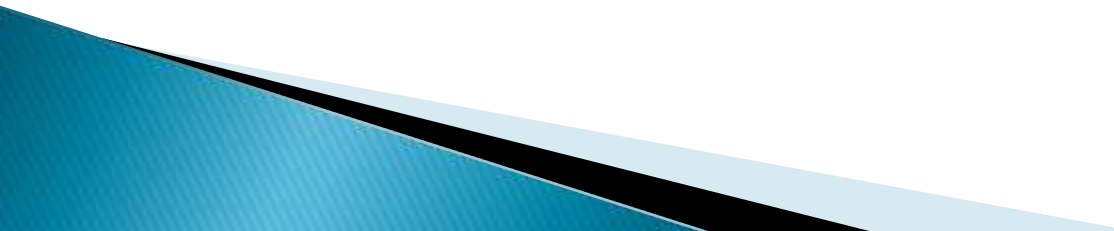
WHY do we use technical reports ?

- Provide pertinent details of experiments and designs in the field of Engineering and Science.
 - Sometimes the reports are written to report on a particular research need. For instance, to give particular information that is needed by upper management to make intelligent decisions that will effect a company's future. In this case the technical report serves as a report of accountability to the organization funding the research.
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Purpose:



Purpose

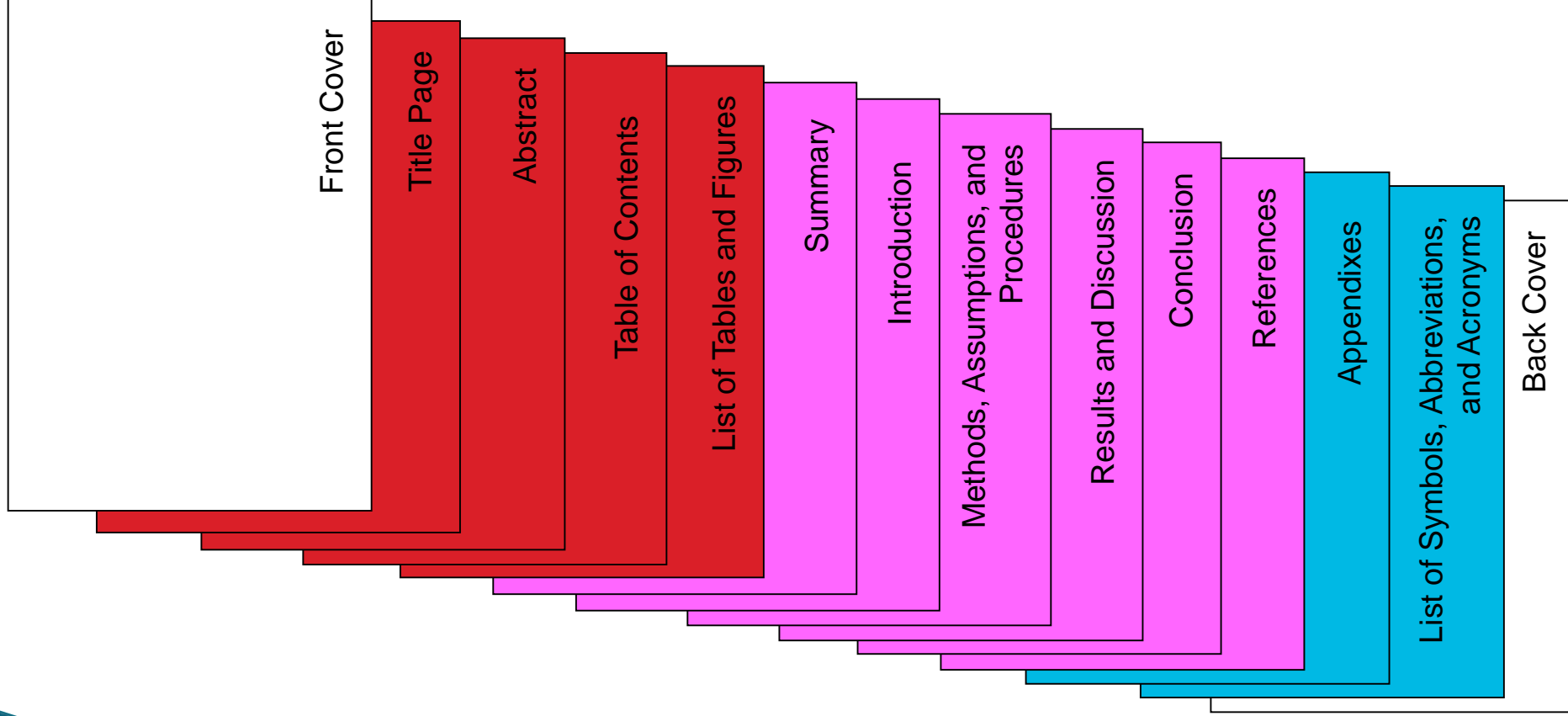
- ▶ The purpose of technical reports is to convey or communicate information in a clear manner.
 - ▶ Sometimes technical reports aim to persuade the reader, for instance, to persuade the funding organization about the genuineness of your research.
- 

Layout and Format

It is divided into sections which allow different readers to access different levels of information.



Technical Report Layout



Usually a report has these components:

- ▶ Title page
 - ▶ Abstract
 - ▶ Table of Contents
 - ▶ Introduction
 - ▶ The body of the report (sections with numbered headings)
 - ▶ Conclusions
 - ▶ References
 - ▶ Appendices
- 