INTRODUCTION TO TECHNICAL WRITING

Marks Distribution

Particulars	%Marks
1.Assignments	8
2.Class Participation	5
3.Project & Presentation	5+2
4. Mid Terms	15
5.Final Exams	50
Total	100

Week	Topics Covered
1	• Orientation class • Technical Writing: Definitions, History, Purposes, Functions, Defining Characteristics
2	• The Technical Style: Clarity, Precision, Objectivity, Simplicity, & Economy
3	• The Technical Writing Process- Purpose analysis & Audience Analysis • Data Collection & Analysis- Primary & Sources, Qualitative & Quantitative Data
4	• Constructing Effective Paragraphs for the technical prose • Writing Synthesis Essay • **Assignment 1: Synthesis Essay(Deadline:Week 5)**
5	• How to write instructions in user guides • **Assignment 2: Making a User guide (Deadline: week 8)**
6	**MID-I**

7	CV/Resume Writing, Cover Letters **Assignment 3: Resume writing (Deadline: week 10)**
8	Introduction to Scientific ResearchThe Technical Report: Writing the Introduction and Literature Review Sections
9	Technical Reports: Method, Results, Conclusion and Recommendation Sections
10	Preparing Prefatory Parts for Technical Reports: Title Page, Table of Contents, Letter of Transmittal, Abstract, & Executive Summary
11	Supplementary Parts, Citation & Referencing
12	**MID-II**

13	Writing Project Proposals Software Management Plan Software Requirements Specifications Software Design Specifications
14	Feasibility Studies (Class Participation 1-Activity) Progress Reports (Class Participation 2- Activity)
15	Technical Proposals (Class Participation 3- Activity) Business Letters: Format, Tone, Structure (Class Participation 4-Activity)
16	Memo Writing, Minutes of the Meeting (Class Participation 5- Activity) Project Presentation Revision

The Four Language Skills

Receptive

- Listening

- Reading

Productive

- Speaking

- Writing

How does each of the skill mentioned above help us?

Writing:

A Non-Productive Activity	Productive Activity
The writer is not the producer of the messages that he/she is writing. S/he is using the skill to record or store messages coming from an external source.	The writer him/herself is the producer of the messages that s/he is writing.

The Importance of Writing:

- It helps you record history.
- It helps you transmit and preserve religious and cultural values, ideologies, and views.
- It helps you serve people by providing you a means via which we can share knowledge, experience, observation, insight, etc.
- It helps nations grow.
- It helps us guide, instruct, etc.
- It helps immortalize ideas, insights, etc.

The Importance of Writing:

- It helps preserve a particular language through codification.

- It is the most appropriate medium of communication in a great majority of cases.

- It makes things permanent and long lasting. Word of mouth is not considered reliable, but the written word carries immense power.

Genres of Writing:

Fiction	Non-Fiction
Drama	Essays
Poetry	Reports
Novel	Research thesis
Novelette	Research papers
Novella	Memos
Short story	Articles
	Editorials
	Reviews
	Letters

Journalistic writing

- **Objective**: to inform by reporting and commenting on events.

- **Audience**: General (wide range of people)

- **Style**: lively, attention grabbing

Devices to hook the attention: photographs and wordplay (pun, humour, exaggeration) Example: "Raju beats Obama on web popularity charts"
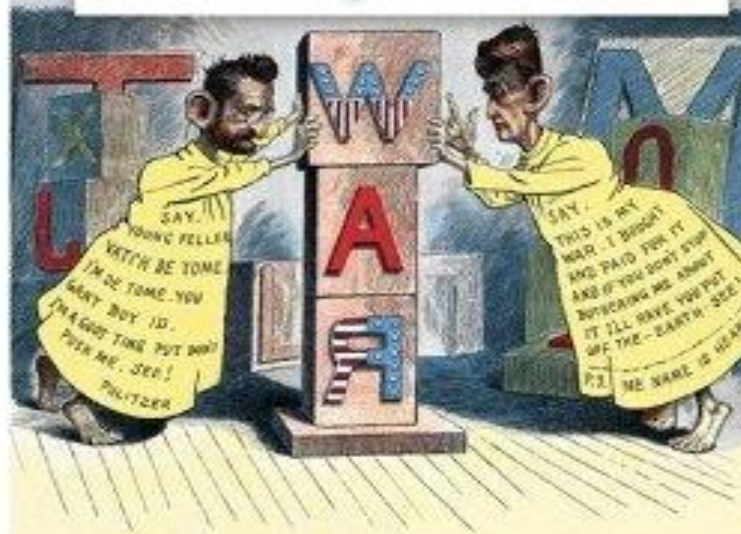
- **Structure**: short sentences and short paragraphs.

- **Content:** people centred (generous use of verbs and the active voice. Words that appeal to different senses.)

- Short quotes of people connected to story

- Tenses

- Consists of factual reporting+ analysis of events (answers who, what, when, where & how. Editorials also answer why)

- **Tone**: objective

Creative Writing

- **Objective**: entertain, enlighten, and transport us to aspects of life we have never experienced.

- **Style:** reflects the personality, attitude, and values of the writer's self.

- **Tone**: writer's subjective perception of reality shared through words. Humorous, witty, optimistic, pessimistic, sarcastic…

- **Content**: variety of topics. writer's experience or imagination or a combination of both. Referred to as literature. Readers accept the content and willingly suspend their disbelief.

Academic Writing

- **Purpose:** demonstrating what you know about the topic, in a way that justifies a high grade.

- **Your knowledge of topic:** less than the teacher who evaluates the writing

- **Audience:** teacher who requests the assignment and who will read it from beginning to end.

- **Criteria of evaluation**: depth, logic, clarity, unity, and grammar.

- **Statistical and graphic support**: sometimes used to explain and persuade

- Examples: 1. essays for English class

- 2. examination and papers in general studies course

Technical Writing

- **Objective**: to communicate technical and scientific information. Getting something done within an organization (completing a project, persuading a customer, pleasing your boss, etc.)

- **Content:** Technical

- **Your knowledge of the topic**: usually greater than that of the reader.

- **Audience:** often several people, with different technical background

- **Style:** precision. Clear and simple organization of ideas, in a format that meets the needs of busy readers.

- **Tone:** Objective

- **Statistical and Graphic support: frequently used.**

Difference Between Technical and Academic Writing

Technical	Academic
1. Has a practical role on the job. 2. Done by an informed writer for uninformed reader. 3. Often aims at many readers. 4. Own or personal point views are not included.	1. Aims only to display your knowledge. 2. Done by a student for the teacher. 3. Aims to satisfy only one person, the teacher. 4. Own or personal point of view may be included.

(1) Proving vs. Instructing Technical writing, on the other hand, is all about instructing how to do something to achieve a specific goal.	Academic writing is all about proving something in one way or the other. Academic writing aims at expanding our knowledge of the world.
(2) Knowledge vs. Solution Technical writing, on the other hand, aims at offering solutions to specific problems that we are faced with in the world.	Academic writing tries to win a rational argument by offering evidence, precedence, and reference.
(3) Win argument vs. Change behavior Technical writing, on the other hand, tries to change our behavior by instructing us on the logical steps through which we can complete a task successfully.	Academic writing tries to win a rational argument by offering evidence, precedence, and reference.

Lets' Check your Knowledge!

Which genre do the following sentences represent best?

1. The ever elusive smile, the misty atmosphere, the hazy landscape in the background and, most of all, the ambiguous, inscrutable expression on the face of the sitter entrap the imagination, leaving questions open and fancy disturbed. Mona Lisa's exceedingly serene, indifferent disposition further deepens the uncertainty and excites curiosity.

2. The identity of Leonardo da Vinci's model for his painting Mona Lisa (Fig. 1) has plagued historians for over 500 years [1]. Early writings stated that mouth and eyes are not distinct [4]. The lower lids are almost horizontal and the absence of eyebrows is striking [7]. The hands appear boneless [6]. Finally, the dress is timeless and quite plain, with no accompanying emblems, jewelry, or accessories [7], unlike that one would have expected had a conventional model been used.

Jackson residents overwhelmingly elected Matthew George their 45th mayor Tuesday, beating out incumbent Earl Hastings by more than 18,000 votes.

"This is a dream come true," George said at his victory party from the King Edward Hotel. "When we weren't victorious last time, we refused to give up. Today, we rejoice and look forward to a new era."

According to poll results, George earned 55 percent of the vote, followed by Marvin Lewis with 25 percent, and Charles Calhoun with 10 percent. Hastings placed fourth, with just 5 percent, the lowest vote of any incumbent in the city's history.

"It just didn't work out for us this time, and the people have spoken," said Hastings, whose term has been plagued by allegations that he misused city funds for personal gain.

Although voter turnout represented only 30 percent of the population, those who showed up at the polls demonstrated they wanted change.

Exercise Continued.

Now identify the genre of this one.

2. It was found that 70% of employees were satisfied with the overall package, and of these 25% were very satisfied. Of the remaining 30%, 10% expressed extreme dissatisfaction with the package. It is worth noting that while employees in the 18 to 35 age group all expressed satisfaction, older employees were more likely to express dissatisfaction.

Key areas which were criticised included the following:

1 Most employees complain about the lack of dental insurance in our benefits package.

2 The most common suggestion for improvement was for the ability to process benefits requests online.

3 Older employees repeatedly had problems with procedures for getting access to discounted prescription drugs.

TECHNICAL WRITING

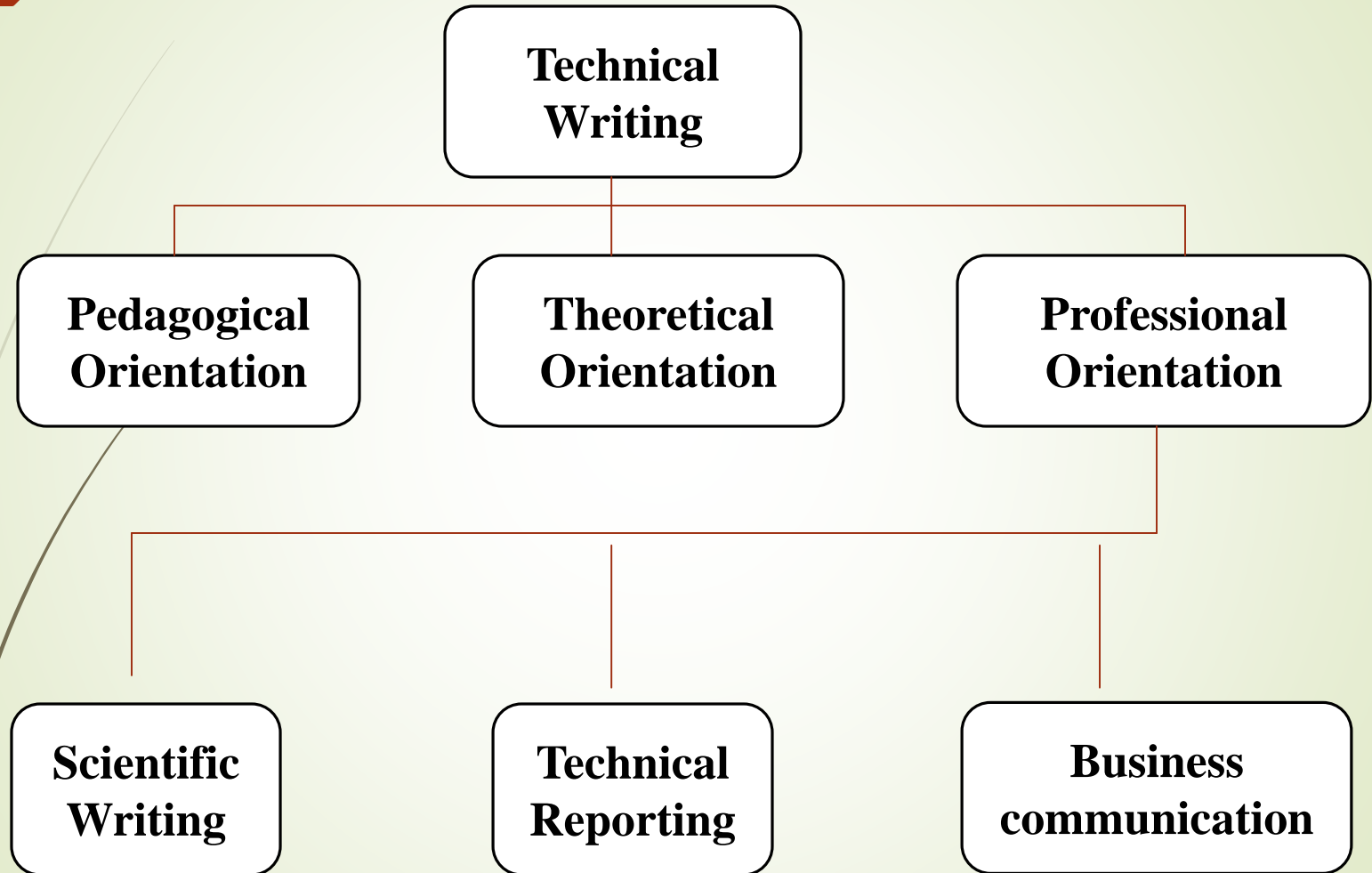| SCIENTIFIC	TECHNICAL	BUSINESS
The goal is to record and share scientific findings within academia .	The goal is to explain how things work, train others in how to perform specific tasks to accomplish selected goals or tasks. It aims to provide authorities with specific information needed to decide future course of actions.	The goal is to administer, communicate with and control others efficiently in a work environment.

Taxonomy of Technical Writing

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                    ┌─────────────────┐
                    │    Technical    │
                    │     Writing     │
                    └─────────────────┘
          ┌──────────────────┼──────────────────┐
┌─────────────────┐ ┌─────────────────┐ ┌─────────────────┐
│   Pedagogical   │ │   Theoretical   │ │  Professional   │
│   Orientation   │ │   Orientation   │ │   Orientation   │
└─────────────────┘ └─────────────────┘ └─────────────────┘
          ┌──────────────────┼──────────────────┐
┌─────────────────┐ ┌─────────────────┐ ┌─────────────────┐
│    Scientific   │ │    Technical    │ │    Business     │
│     Writing     │ │    Reporting    │ │  communication  │
└─────────────────┘ └─────────────────┘ └─────────────────┘
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Technical Reports

- Progress reports
- Feasibility reports
- Specifications
- Proposals
- Facilities descriptions
- Manuals
- Procedures
- Planning documents
- Environmental impact documents
- Safety analysis reports
- Bug reports

Business communications

- Resumes
- Cover letters
- Transmittal letters
- Customer relations writing
- Human resources communications
- Trip reports
- Administrative communications

Scientific writings

- Books
- Journals
- Magazines
- Conferences
- Newsletter
- Websites and blogs

What is Technical Writing?

*"It is a **long-established** and important **professional activity** that can be defined as a **specialized field** of communication whose purpose is to convey technical and scientific information and ideas accurately and efficiently."*

"It can also be defined as the written communication of engineering and scientific ideas, concepts, and data presented objectively, logically, and accurately."
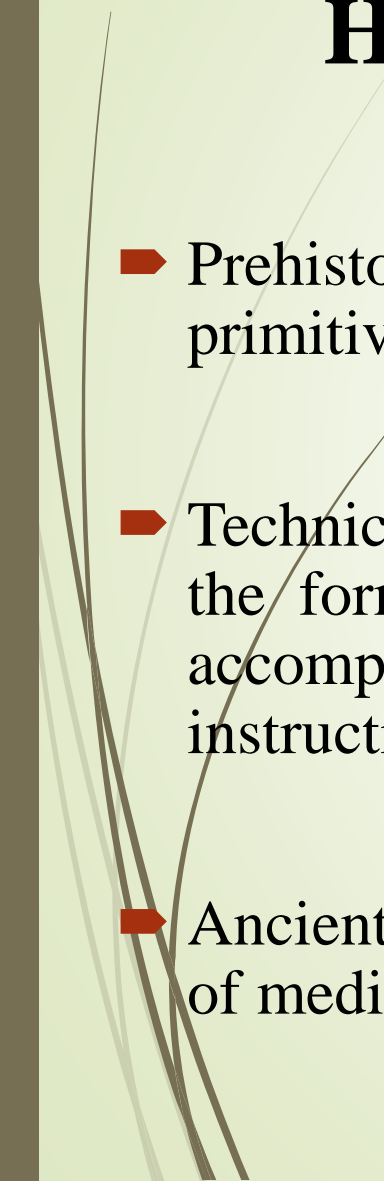
What is Technical Writing?

"The accurate and factual recording of the knowledge that one gains through one's senses for the purpose of disseminating it is technical writing."

"It is a method of communication which deals with subjects in

- *Engineering*
- *Business*
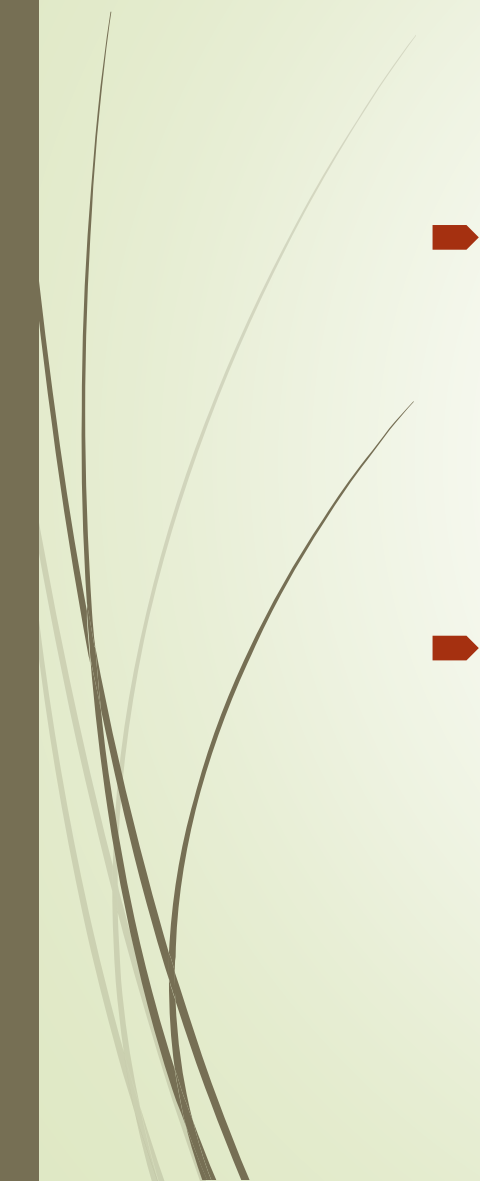- *Trade*
- *Government*
- *Technology and Science"*

History of Technical Writing:

- Prehistoric cave paintings in France and Spain that illustrate primitive man's techniques for hunting buffalo.

- Technical writing from Babylonians which has survived in the form of clay tablets contains information about their accomplishments in astronomy, mathematics, agriculture, instructions manuals for making beer, etc.

- Ancient Egyptian technical writing on papyrus in the fields of medicine and mathematics.

History of Technical Writing:

- More prolific technical writers were the ancient Greeks. Their writings on mathematics, physical sciences, biology, psychology, literature, etc provided the foundations for the current modern Western European and American civilization.

- Instruction books or manuals is an important area in technical writing and it started in the 16th century when the first manual on military weapons was written.

History of Technical Writing:

➡ World War II brought a tremendous speed-up in research and technology. As a result of this, the field of technical writing grew up almost overnight. The country needed a quick and efficient way to explain new scientific devices and weapons to the non-scientists and soldiers who were going to use them.

➡ Today's modern world more than ever needs technical writers to explain how to use the new systems, and consumer products and services, spawned by recent advances in agriculture, biology, chemistry, computer science, engineering, and physics.

Technical Documents common in the field of CS

- User manuals
- System administration guides
- Installation guides
- Quick reference guides
- Release notes
- Help files
- Standard operating procedures (SOP)
- Proposals
- Specifications

Technical Documents common in the field of CS

- Project Overview Specifications (POS)
- Software Project Management Plan (SPMP)
- Reports
- Business correspondence
- Minutes of meetings
- CV/Resumes
- Cover letter

The Importance of Technical Writing:

In most of the cases, these reports and documents are one's only form of communication with clients, government agencies, managers, and professionals at other facilities and companies.

The recipient will usually use the report or document to perform a task, make a decision, solve a problem, or acquire information and knowledge.
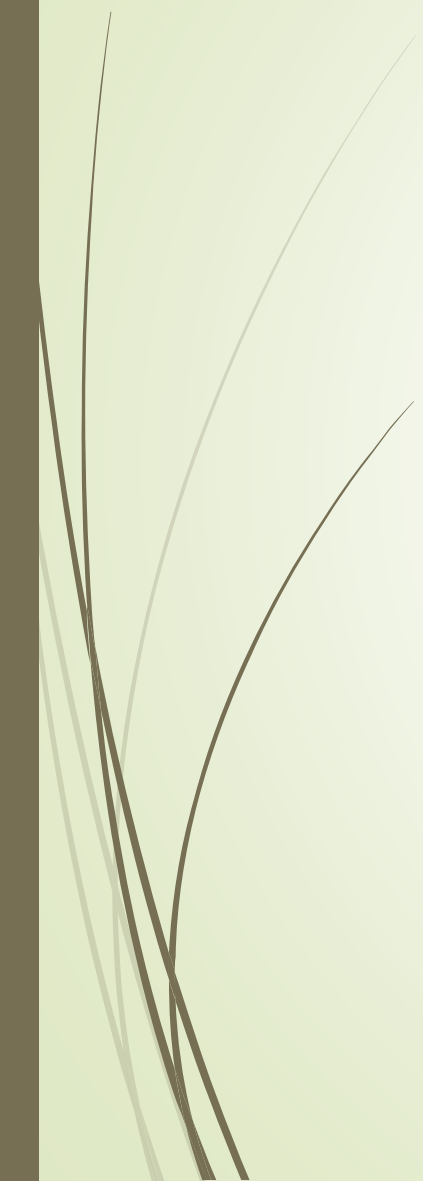
Common Purposes of Technical Writing:

- To give information (It is the primary purpose of TW)

- To analyze and interpret events and their implications
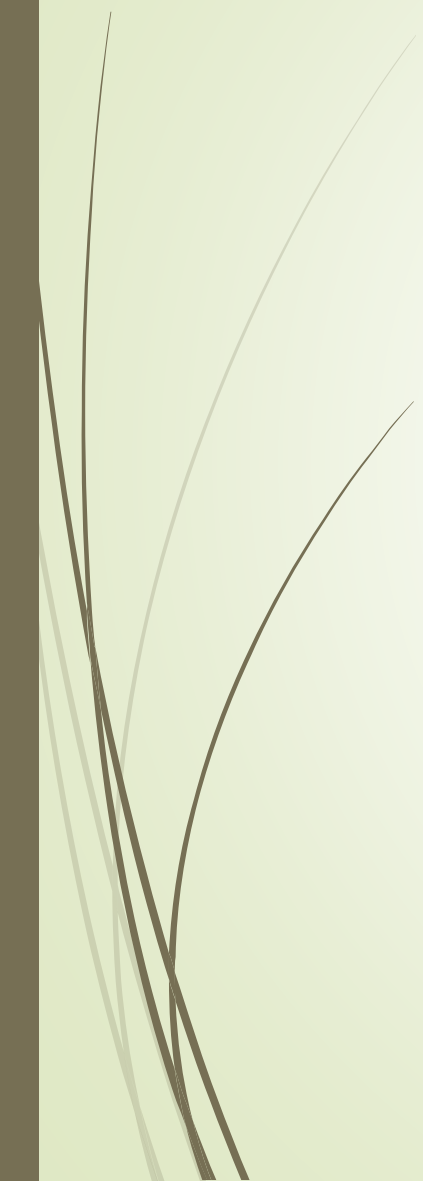
- To persuade and influence decisions

Functions of Technical Writing:

- To serve as basis for management decisions
- To furnish needed information
- To give instructions
- To explain techniques
- To report achievements
- To analyze problem areas
- To determine design and system requirement
- To serve as basis for public relation

Functions of Technical Writing:

- To provide report to stockholders of companies
- To develop a product
- To provide service
- To record business proposals
- To procure business through proposals

Difference between Technical and Literary Writing

- **<u>Point of Difference</u>**

- Rule governed
- Organization
- Clarity
- Grammatical Accuracy
- Tone and Style

Difference between Technical and Literary Writing

- Stylistic Devices

- Vocabulary

- Content

- Authenticity

- Use of Visual Aids

- Summary

TEXT A

One enters the palatial room through an elegantly carved maple door to reveal the French provincial furniture of another century. The plush beige carpet makes one want to run and dance barefoot.

TEXT B

The entrance to the 24-ft room is a 36-in by 80-in maple door decorated with a carved family crest. The floor has a beige nylon carpet with a 1-in pad. The furniture is French provincial.