COURSE OUTLINE

* Professional use of English language for letters
* Specification
* Descriptions
* Presentation of charts
* Graphs
* Tables
* Writing of proposals in reports
* Case studies of major professional presentation reports and proposals.

AIM

- To provide students with technical writing and presentation skills necessary for effective report, project documentation and presentation.

OBJECTIVES

* Students should acquire knowledge of various ways of data collection (primary and secondary data)
* To develop effectiveness in thesis documentation
* To learn the rules guiding oral presentation.

* Technical Writing

This is an art of writing wherein scientists and engineers learn to express themselves concisely and with precision. It involves clarity, accuracy and simplicity.

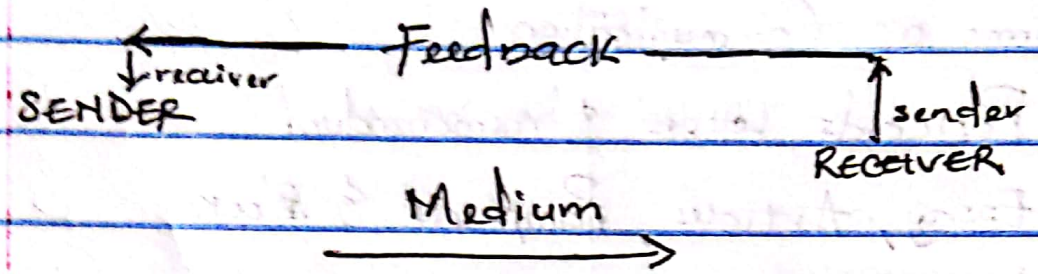
* Communication

It is a means through which people share information, ideas, attitudes and feeling. It involves mental preparedness and a conscious effort to listen.

* 70% of communication efforts are:
• misunderstood • misinterpreted • rejected
• not heard

* The majority of our perceived ability comes from how we communicate.

* Communication is the process of sending and receiving information among people



Sender – Writer, Speaker, Encoder

Message – Information conveyed.

Medium – Letter, Report, Presentation

Receiver – Reader, listener, Decoder.

* Skills required for Communication

1) Writing – 9%

2) Reading – 16%

3) Speaking – 30%

4) Listening – 45%

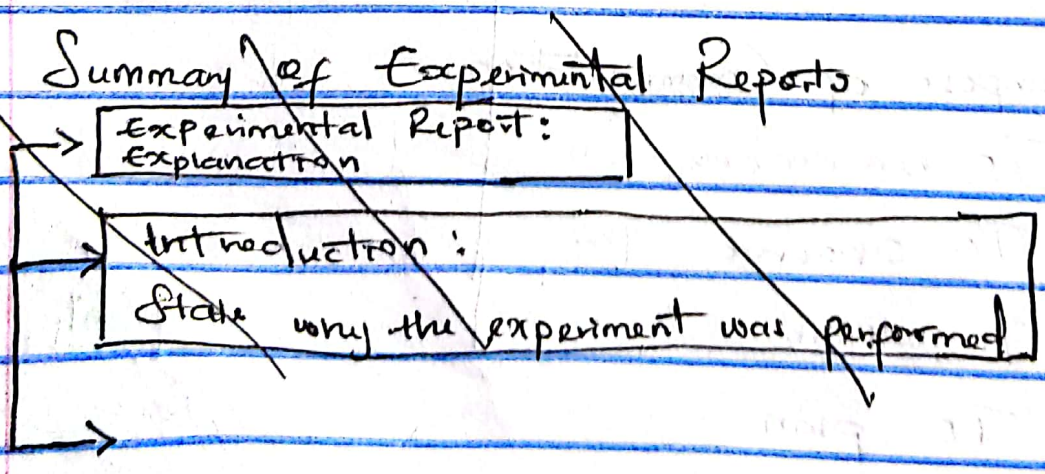
* Purpose of Communication

- To remember
- To observe
- To think
- To plan
- To organize.

* Forms of Communication
- Postcards, Letters & memorandum
- Essay, Articles, Pamphlets & Books
- Instruction
- Technical Reports, Description & Specification
- Progress Report
- Journal Publication for Research Work
- Project or Thesis.

* What to learn from your writing
- To communicate most effectively, you must know the reader's knowledge, needs and attitudes.
- Too much details will bore some readers but appear inadequate to others.

* Summary of Experimental Reports



* Summary of Experimental Reports

Experimental Report:
Explanation

Introduction:
State why the experiment was performed

Material & Method:
Should be sufficiently detailed so that an individual with similar background and training could repeat the observations and obtain similar data.

Results:
A statement of facts for what was observed and it includes the results and the analysis of the data (as tables, graphs or statistics

Data:
Representative data that may also be required

Discussion:
Result interpretation and this may include relevant published work by other people

Conclusion:
Summary of major findings and each conclusion should be listed as a separate numbered element.

* Examples of short words vs long.

Use	Don't Use
Do	Accomplish
Extra	Additional
Help	Assistance
Use	Application
Person	Individual
Begin	Commence
Sign	Indication
Please	Kindly

* Unnecessary qualification of words

Incorrect	Correct
Absolutely perfect	Perfect
Not actually true	untrue
The actual number	the number
almost perfect	imperfect
by means of	by
cylindrical in shape	cylindrical

* Tautology: saying the same thing twice using different words. eg "in my own personal opinion"

* Superfluous words (Circumlocution) – imply the use of many words in a sentence where few would do better.

Circumlocution	Better English
– in virtually all sectors of the environment almost everywhere	almost everywhere
– If at all possible	If possible
– in black and white only	in black and white
– I myself would hope	I hope
– I would have said	I think
– On a regular basis	regularly

* International System of Units. (S.I Units)

Quantity	Symbol
Length	km, m, cm, mm
Area	m^2, cm^2, ha (hectare)
Volume	m^3, cm^3
Capacity	l, ml
Mass	g, kg, t (tonne)
Density	kg/m^3

* Process of Technical Writing

1 Gathering Information and Ideas

* THE LAYMAN

A layman is every person outside of their particular field of specialization. A layman needs specialized words and terms defined.

* THE EXECUTIVE

An executive is someone that may have little technical knowledge but have been trained in management, psychology, social science or the humanities. He is more concerned with what things do than with how they work.

* THE EXPERT

A senior scientist or engineer with professional certification and many years of experience in his field.

* THE TECHNICIAN

He is the man at the head of any operation,

builds equipment and he maintains it.

* The most difficult audience for a technical writer is the combined perhaps composed of executive, experts and technicians.

* Elements of Scientific Writing.
- Explanation, clarity, completeness, impartiality, order, accuracy, objectivity and simplicity are given here as basic requirements in scientific writing.

* Unscientific Writing
- An opinion is expressed and later stated as a fact.
- The author gives no evidence in support of the implication that students are good at either literature or science.

* Chart: a graphical representation of data, in which the data is represented by symbols, such as bars in bar chart, lines in a line chart, or slices in a pie chart.