according to general standards, design standards of company or the university,logical rules and practical experiences

describe a research process or research and develpment results or the current state of the art in a certain field of science or technology

it helps students to make report in professional format

prepare studnets to write technical reports and papers in engineering practice

patent

expertise

work report

internshiop report

about testing and measurements

business plan

teasting reguations

5 questions before you write:

who are your readers

who are your stakeholders

why is the report written

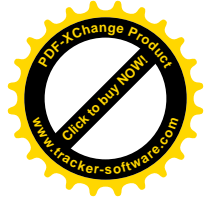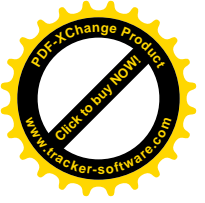where are the report written

how is the report organized

clarity: easily to understood by your intended audience

comprehensiveness: all of the necessary information is present

concisness : without verbiage(حشو)

correctness it is grammatical correct

accept and analyze the task:

understand what you need to finish

clarify any ambiguities(لبس)

check or create the title:

reflect the report content

has the main idea and attract interest

design a 4-point structure

create outline that includes the main sections

design a 10-point structure

develop more detailed outline that breaks down each main section to subsections

search , read , and cite literature

make research to gather literature

make sure to note all bibliographic details for citations.

Elaborate the text:

write with the 4 c' s

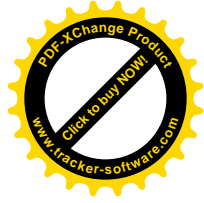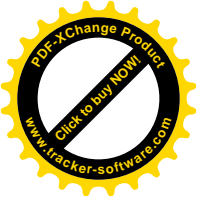Create or select figures and tables

for enhance understanding

develop detailed structure:

prefrom final check

print copy or create pdf

copy , bind and distribute

to help manage time effectively

double youres estimates(تقديرات)

start early

use a rule of thumb : make plan depends on your abilities to put a realistic deadlines

title is the first impression

    create interest : spark curiosity

    be accurate : reflect the main topics

    be concise : aim for brevity(ايجاز)

write the task

identify the keywords

combine keywords

optimize for sound

select the best option

structure is the backbone of the report
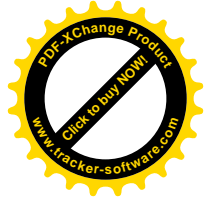
    quick review of the report content

    assistance for writer and supervisor (evaluating the work)

    tool for guiding the reader through complex content

Lec 2

Front matter : the introductory part of the report that is essential(ضروری) to help the readers find the important information

cover : logo and institution name , title (large font), type of report(small font), authors(medium font)
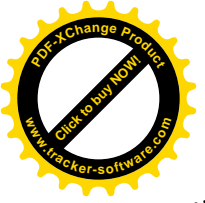
title leaf : cover info and date , version number , supervisors

abstract : brief overview of the purpose, scope

toc : start write it after write the body of the report , lists the title and beginning page number of each major section within the report

list of figures & tables : help the reader to locate the figures and tables in the report

list of abbreviations and symbols : to help the reader to understand the abbreviations and symbols and what they stand for , listed in alphabetical , if it more than five symbols or abbreviations we make this list

Lec 3

End Matter : clarifies the body and add additional info can be found , optional , exists in books

Appendixes : anything that cannot be left out of the report but it can distract the flow

report may include more than one appendixes

large tables , flowcharts ,math analysis, large illustrations , drawings

bibliography , reference list : all the sources that are used in the report

bibliography : in books only , all the sources that are used or unused in report

Index : detailed alphabetical listing of topics , terms , and concepts found in the document with the page number or the sections where they can be found , helps the reader to locate info

glossary : explanations of terms
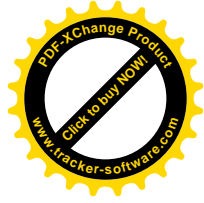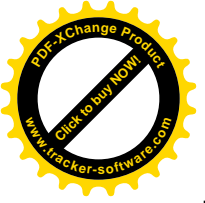
distibution list : gathered list of individuals that are selected to recive specific communitaions, such as emails,

>   way to easily send emails to group of people

>   they can be any people contribute in this report

adds on : some additional documents before the body and can be acknowledgement , summary or tech specifications

Notes : the body , front , end

Lec 4

visual element : graphic , table , image , that expresses info or message

why :

>   clarify the content

>   help interpret(تفسير) info

>   make it the doc interesting and easy to read

>   increase visual appeal(الجمال البصرى)
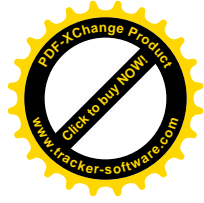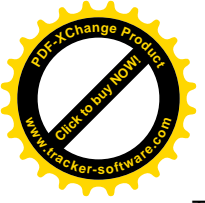
Types :

photographs : high resolution real-world images providing detailed view of the subject

tables : structure to organize and represent data in clear format

>   why rows , columns : easier for readers to compare , analyze , interpret data

>   can be numeric : used in statistics , financial data

>   , descriptive : provide info or summaries that describe and explain data or notes

Types of Line art : drawn with lines , text , lines formed in to letters , words , sentences

schematics : sketches of process or object , present the main components of the device

concept diagram : illustrates the relations between various concepts or ideas in particular topic and it helps in brainstorming and planning

clip art : pre-made images , illustrations , or graphics , can be made in different styles , they are available in digital libraries and software apps

    used in presentations , add interest , avoid distraction images

Types of Graphs : highlight relations and trends between variables for analyzing and interpret data

    Line Graph : trends over time

    Scatter Plots : shows trends of data

    Bar Graph : compare quantities across different categories

    Histogram : represent the frequency distributions of numerical data using bars

    Area Graph : the area under line represent cumulative totals(مجموع تراكمی)

Types of Charts : visual presentations of numerical or verbal info

    Pie Charts : slices to show proportions of a whole

    Flow Charts : represent process or workflow , showing steps in sequence

    Gantt Chart : used to illustrate timelines and project schedules for project management

    Org Chart : organization structure , showing hierarchies and relations

    Bubble Chart : represent 3d data , size of bubble for indicating third variable

Drawings : hand-rendering or digitally created illustrations that represent processes , objects , or concepts

    show dimensions , materials and details for understand

    Types : tech drawing , assembly drawing , cross-section drawing , illustrative drawings
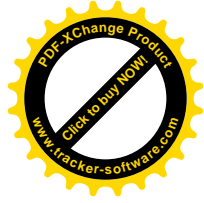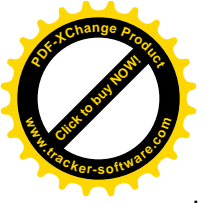
Lec 5

Formal Language : characterized by a professional tone , precise(دقة) vocabulary , adherence(التزام) to grammatical rules

Informal Language : this is more conversational and can include slang(عامية) , contractions(تقلصات) , relaxed tone

Note : we should know our audience and purpose

active : the subject of the sentence performs the action

passive : the subject receives the action

Bullet points and lists : break complex info and make it easier to understand

Avoid : unclear terms ,redundant expressions , jargon and overly tech or complex words

Lec 6

Steps of writing :
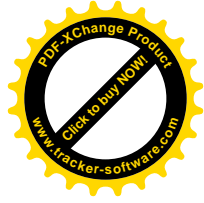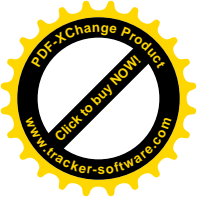
 break report topic into several correlate ideas

 write the heading and subheading ; saving time and effort

 write the body of the heading and it's subs into paragraphs

Paragraph : group of sentences focus on one main idea or topic

 each sentence must give info about the topic

Purpose

keeping the ideas organized

making info easier to under

highlight main points

helping ideas to flow smoothly

Types of Paragraphs

Narrative : tells story or sequence of events in chronological(مرتب زمنيًا) order

Descriptive : it paints a bright picture about something using sensory details

Expository : explains about topic clearly and concisely that include cause and effect process

Persuasive : it convinces the reader to agree with a viewpoint using arguments and evidence

Characteristics of effective paragraphs

unity : focusing on one idea

coherence : flow logical using transition words

conciseness

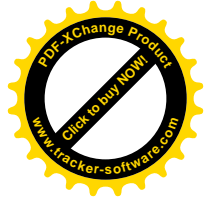Transition words :
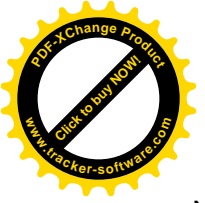
in summary

in conclusion

finally

as a result

while

although

however

Tips for Conciseness : avoid redundancies , use simple words , include necessary details , using active voice

Main parts of Paragraph :

Topic : the first sentence introduces the main idea

Support : the main body , providing details , explanations , examples that support the main idea

Closing : the last sentence , can wrap up the idea or transitions to the next paragraph summarize the points

Lec 8

reviewing the report to evaluating it's clarity and structure and format

Format Check : check front and body :

Front : check the lec 2 for good front

Body : numbered , use Sanserif fonts and avoid decorative fonts

Font size :

Body 10 -12

heading 14 - 18

subheading 12 - 14

title 18 - 20

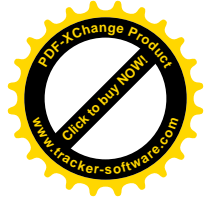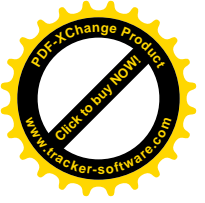Hierarchy decrease the size

Line spacing : 1.15 - 1.50

text alignment : eng to left , arab to right , Figures and tables to center and add value and must be   numbered and have captions and appropriate size

heading are sentence case

Grammar Check :

in MS word have grammar check tool and to get the synonyms or Grammarly site

Clarity Check :

if you can find it easy to read it is good

check plagiarism(حقوق) even if the reference mentioned

check ai ; The two checks have limits to use

Plagiarism Check : using someone work , ideas without have the permission to use it , The limits : 15 - 20% , With :

Turntin , Grammarly

Why : it is ethical , can harm the writer , it is a legal problems like copyright violations

Ai Check : tool for writing the report , The limits : 10 - 12% , with : Turntin , GPTZero

Steps for review :

use software tools to save time and effort , make up a revision checklist to check on covered items

Lec 9

Designing effective presentation :

Big : Text , how to estimate text : look at it from 2 meters away

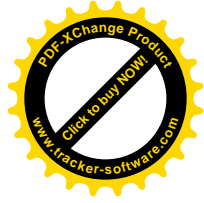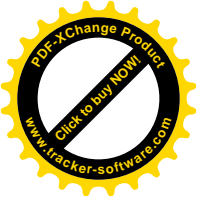Simple : avoid many colors , many fonts and styles ,, using the 6*7 rules : 6 lines * 7 words

avoid distraction arts , distraction sounds use if necessary , avoid transitions except appear ,

disappear

Clear : Capitalization : capital letters are   difficult to read ; use upper and lower

don't use italic , use bold or normal

underlines for hyperlinks

Numbers : use numbers lists with sequence , or use bullets without priority , hierarchy ,   sequence

Colors : Use contrasting colors , use complementary colors

Size

Progressive

Consistent : differences draw attention , may imply importance , use surprises attract not distract

Lec 10

Oral communication : process of transmitting info and ideas through spoken words ,

speaker send messages to audience how receives and interpret message

Oral communication

Verbal communication : speaking uses words to share ideas

nonverbal communication : non spoken factors like facial expressions(تعابير الوجه) , body language to send mess

The situation : the place , culture and social setting can change how people understand messages

Building relationships : help people connect , share feelings , and make friendships

keys for effective presentation :

No more 10 slides per topic / subtopic

No more than 20 minutes as maximum presentation time

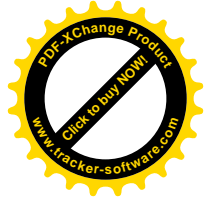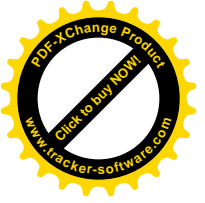Not less than 30 points font per slide or rule 6*7

Delivery skills :

Verbal communication :

Language : use appropriate language

Voice : it should clear , confident and expressive with appropriate volume and pace

Tone : attractive , positive ,passing on energy , professional tone

Nonverbal communication :

Eye contact : maintaining(الحفاظ) eye contact with the audience helps establish a connection and confident

Facial expression : expressing emotions

Posture : can convey confidence and attentiveness(انتباه)

body language : can convey interest and engagement

Managing Stress and anxiety

practice ,take a deep breath , take your time , be aware of body language , try not to say ohh , keep eye contact , speak loud and clear

Avoid : touch heir , face , speak too fast , avoid eye contact , make ohh sounds

The situation : detect your audience background , habits and culture , some things you do can be offensive

Building relationships : introduce your self before starting ; that establish a good connection with your audience and with that help in good streaming