BEFORE YOU START WRITING:

- Read the assignment. An excellent paper that does not cover the assigned topics will always be heavily penalized.
- Write your thesis statement and an outline. Your writing should follow a logical style, presenting facts in an orderly fashion. If one sentence is not related to the next, it belongs in a different paragraph or reorganize your paper! I should know EXACTLY what you are going to explain by the end of the first paragraph. This is usually done with a THESIS STATEMENT.
- Avoid over-doing the introduction and background! Keep your introduction paragraph (in a 4 to 8 page paper) constrained to the first page! You have to introduce the problem, the possible solutions, and your approach! Don’t waste space with unrelated facts. For example, if your focus is on LED lighting, you don’t need to discuss the details of the Copenhagen negotiations.
- Each paragraph should be a complete thought. Separate paragraphs once a thought is done (~ ½ - 1 page, double spaced). DO NOT separate a new paragraph for every fact you have.
- When writing a paper, avoid the use of “I would…”, “I will discuss,” etc. Rather, just say “A method is proposed…” or “In the author’s opinion…”
- Avoid superlatives, slogans and unsubstantiated arguments. These are not suitable for scientific writing and are best left for popular newspaper articles. Limit usage of words like 'great', 'fabulous' etc. eg., “The earth is bleeding. Its time we answered her call” OR “LED lighting will revolutionize the way we think of lighting our campus”.

QUOTES:

Avoid directly quoting text as much as possible. You should synthesize the authors’ main points, express them in your own sentences and cite the paper. Don’t copy long quotations that don’t contribute when you could just as well extract in a few words the essence of the facts.

**Don't:** “LED based exit signs and traffic signals have fulfilled their promise of an energy efficient, long-lasting, compact, and low-maintenance light source in real-world commercial and industrial applications by saving millions of kilowatt-hours of electricity and thousands of maintenance hours,” (LED Lighting Technology, 6).

**Do:** LED lighting has already proven a successful technology for use in specialized applications. LED-based exit signs, traffic signals and indicator lights have demonstrated the low-maintenance, energy efficient properties of LED lights (LED Lighting Technology, 6).

Any quote or fact that you do include should be presented with 1-3 sentences of discussion. Your goal is not simply to regurgitate the fruits of your research but also to provide some level of interpretation.

REFERENCES:

You may also use citation methods commonly used for scientific papers, such as numbered references or in line references to author and year, with a full reference list at the end. A sample reference might be "[Smith and Jones, 2006]". In this case, you should be sure to identify specific page numbers where relevant ("[Smith and Jones, 2006, p. 291]"). Here are several acceptable methods depending on style:

- …sentence text.1 (With numbered references at the end)
- …sentence text [1]. (With numbered references at the end)
- …sentence text (Author, Year). (With alphabetized references at the end)
- …sentence text (Author, Page #). (With alphabetized references at the end)
Within the text, just reference an author and not the entire article:

- **BAD**: In an article by John Smith, Pasha Washa, and Bill Bob entitled “This is a Very Long Title to a Paper,” he explained some facts. (Smith, 1999)
- **GOOD**: Smith et al. presented some facts related to……… (Smith, 1999)

When formatting your citations, do not list the search service or website you used. For example, you should not list sciencedirect.com……, webofscience.com……, googlescholar.com……., or for that matter, any website for a PUBLISHED article or book. If what you found can ONLY be found on the internet, then include the URL and an accession date (i.e. the date that you downloaded the content and read it).

**OTHER TIDBITS:**

- Indent your paragraphs; it makes it easier for us to read.
- 12 point, Times New Roman, 1” Margins
- Preferably, single-space each line in the bibliography, but keep a space between each entry.
- Number your pages (either at the top or bottom of the page).
- Don’t use title pages. Just put a title on the top of the paper. (Don’t forget the title!)
- Put your name, Section & TA, Course on the upper right hand corner of the page. Do not forget your section and TA so that we can grade your paper!
- As a general rule, avoid the use of slashes “/” in text. (unless you’re showing numbers: e.g. m/s, and even then it’s preferable to write m s⁻¹.)
- All figures and tables must be referenced within the text.
  - Table 1 describes the methodology of…..
- Abbreviations – Always define abbreviations when you first mention something:
  - Light emitting diodes (LED’s) are used to ………. When installing LED’s………..
- Other abbreviations
  - For multiple authors: *et al.* (It means and others)
    - Von Karman *et al.* proposed a new theory using asymptotic analysis of……
  - For Example: e.g.
    - This work can be found elsewhere, e.g. a dictionary, Wikipedia, etc…..
  - That is: i.e.
    - I’m going to the place where I work best, i.e., the coffee shop.

**YOU WILL BE GRADED ON THE BASIS OF THE FOLLOWING CRITERIA:**

- **Clarity of argument**;
- **Brevity**;
- **Accuracy**;
- **Quality of discussion**;
- **Evidence of research and reading**;
- **Synthesis of diverse sources**;
- **Independence of thought**