CHEM-1112 General Chemistry II Lab

Library Research Assignment

As part of the General Chemistry lab you will be required to use the library and its electronic resources to do literature research. During the semester you will research a scientific topic, assigned by your instructor, find relevant research literature and write a summary of the publication that you selected.

Instructions

A) Research topic

• The research topic will be:
  • Aspirin: Its properties, use and/or benefits (or side effects) (Think about its role in (chronic) pain management, preventing certain diseases, like heart disease, or reports on reducing the risk of colon and other cancers, and other new research on this old drug)

B) Timeline

• Find a research paper in the next 2 weeks (not later than Thu Sep 28)
  ➢ The article needs to be published between 2012 and current
• Present a copy of the paper in PDF format, to your instructor for approval (~1 week). You can either give a hardcopy or send it as an e-mail attachment. A URL or link is not acceptable. If you cannot get a full-text publication, ask your instructor or the librarians for help in getting it, or find another publication.
• When your choice is approved by your instructor, write a typed 2-page summary of the article, double-spaced, using Times New Roman font size 12.
• The summary needs to contain
  a) Title page with correct reference to the publication (see below: Example of Setup)
  b) Background information
  c) Goal of the experiment(s) or described research
  d) Methodology and results
  e) Discussion and conclusion
  f) One short paragraph describing why you thought this was interesting or what you learned from this paper
• Turn in a first draft 2 weeks after your literature choice has been approved for editing and review
• When edited and approved by your instructor produce a final draft within 1 week

C) What do you get out of this assignment?

• 100 points to your final grade
• A chance to learn how to use scientific libraries and electronic databases.
• A chance to learn to read scientific literature and how to write a summary of a scientific paper
Writing a Journal Abstract: Guidelines

1. Choosing the Article

Find an article on either an assigned subject or on a subject that you have studied in class or in independent study/research. An abstract is a summary of the paper to let the readers know what the paper is about, which techniques have been used, what the results and conclusions are without having to read the whole article. In order to do that, you will need to read this article very carefully and determine what the relevant information is, which techniques have been used, what the results are and which conclusions have been reached. An abstract is really an analysis of a paper, project, technique, etc., and not necessarily a criticism. For our purposes it will be necessary to read and summarize the entire paper.

2. Style and Layout

• Title page (see example below)
  - Upper right hand corner
    - Your name
    - Class and section
    - Instructor
    - Date
  - Title of the paper reviewed, reference to the journal, date, volume, pages, authors. – top part of page, centered

• Abstracts should not exceed two pages, double-spaced and typewritten in Times New Roman, font size 12. Normally an abstract should be written in less than 300 words. Many scientific publications limit an abstract to 250-300 words.

• All abstracts should be written from the perspective of the authors and in a 3rd person passive style. For scientific papers and reports “It was done according to the following procedures…” is preferred over “I/We did…”. You should strive to write a “tight” abstract, that is, one that does not contain unnecessary verbiage.

• You need to write an abstract or paper that is understandable to your peers. You need to provide necessary background in the introduction, and write in a way that your colleagues in the class would understand and appreciate your logic.

• You should always write a rough draft and then revise it. It may take several drafts to make a good critique.

• While revising and reading your paper, make sure that the sentences follow a logical line of thought, and do not contain multiple subjects or thoughts (run-on sentences). It is better to write shorter logical sentences than one paragraph-long sentence in which what you are trying to say gets lost.

• ALWAYS follow the rules of correct grammar and spelling. Use a spell-checker or a dictionary if you are not sure.

• Use paragraphs to subdivide your abstract. Writing a 2-page summary in one paragraph makes it hard to follow

• When you refer to genus or species of an organism, or to foreign words or expressions, underline them: E. coli, et al., viz., etc.

• Attach photocopies of the article and all references, if any, to the back of your paper.
3. Some Hopefully Helpful Suggestions

- Your choice of paper on which to base your abstract is the first and most important step. Choose something in an area that has your interest. You may choose to summarize a technical, experimental or review paper.

- The paper needs to be a peer-reviewed publication. Most scientific papers are peer-reviewed and based on sometimes many years of research. An editorial or opinion is NOT a peer-reviewed publication. Newsletters and publications by a university or a company are not peer-reviewed and therefore not acceptable. When in doubt, ask your instructor.

- Your logic is the second most important aspect: be certain that you logically present the ideas and concepts of the authors in your abstract. If you use any additional references, attach them to the back of your abstract.

- Finally, since this is a training exercise in **professional communication**, be certain that you carefully construct and proofread your paper. Avoid jargon and do not include any unsubstantiated statements.
Example of Set-up

Literature Assignment

Set-up of your Summary

- Use a title page
  - Title of the paper, e.g. The Use of Aspirin in the Treatment of Melancholia
  - Authors, e.g. Hendricks JJ, Jones AB, Smith OCD, Gonzalez, ROB
  - Source (journal name, year of publication, volume and pages), e.g. Journal of Fantastic Experiments (1901), Vol 298, pp. 172-185

- Your Summary
- Additional references or source material if applicable
  - References need to be given in the format shown above and on the following pages

Title Page

Course: CHEM-1112, section 001  Name: Joe Student
Semester: Spring 2009  Date: April 10, 2009
Instructor: Dr. van Dijk

Give the **Title of the paper**, followed by the **COMPLETE source**, then your summary

**Title**  Risk of Uncomplicated Peptic Ulcer among Users of Aspirin and Non-Aspirin Nonsteroidal Anti-inflammatory Drugs


PLEASE notice that the year of publication is given directly after the names of the authors

Summary by _(Your Name)_____
Next Page: Your Summary

Summary of [Title of publication] by [Names of authors]

Your 1½ -2 page summary
➔ Use 12 point font and write with double spacing

*If additional references are used*, give them at the end as a footnote

Reference or Footnote: