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# Chemistry Students and Information Literacy

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# Chemistry Students and Information Literacy

Ruth Owens, Assistant Librarian

SUNY College of Environmental Science and Forestry

October 24, 2014

Upstate NY Science Librarians Meeting





# ESF 200: Information Literacy

- 1 credit course taught by librarian faculty
- 5 weeks
- Required for several majors
- 2 specialized sections: Chemistry seniors and Paper & Bioprocess Engineering juniors
  - Library sources and services
  - Research strategies
  - Databases
  - Citing sources/bibliographies
  - Information issues
  - Other topics

# Chemistry Freshmen

- Visit Orientation Seminar
- Library resources and services
- Getting started with databases (SciFinder)
- Articles → Journals → Databases
- Talk about information literacy class coming up



# Chemistry Seniors & ESF 200

- ESF 200 concurrent with senior professional chemistry course in fall semester
- Students work with chemistry faculty to develop a research proposal
- Conduct literature and background research in ESF 200
- Students do the research from their proposals in the spring semester



# Chemistry Sophomores

- Faculty want students to learn information literacy skills sooner than senior year
- New course on career skills for chemists (FCH 232)
- Chemistry faculty asked that a librarian help with information literacy in this new course
- Worked with faculty to develop outcomes and assignment for information literacy portion of class

# FCH 232 Information Literacy Outcome

“Develop skills in ‘Information Literacy’ to facilitate conducting a survey of technical publications for the purpose of writing a ‘Position Paper’ on a subject in bio-, polymer, environmental or natural products chemistry.”





# Information Literacy Class Session Outcomes

(To be evaluated by assignment)

- Students will be able to develop a search strategy to find literature on topic
- Students will be able to search in library databases
- Students will be able to identify a peer-reviewed article
- Students will be able to correctly format literature citations according to APA style



# Assignments

## Class Assignment

- Write a paper on a current event concerning chemistry
- Find a current event or issue
- Locate other scholarly sources relating to current event topic to discuss in paper

## Info Lit Assignment

- Write a paragraph describing your topic
- Topic keywords, how they were combined and searched
- Discuss the two databases that were searched
- Describe what a peer-reviewed article is
- At least eight scholarly sources in APA style references list



# Class Guide

- <http://libguides.esf.edu/fch296>
- Database Links
- Search Strategy presentation
- Citation examples and managers
- Link to assignment and instructions



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## FCH 296 - Career Skills for Chemists

Tags: [chemistry](#), [fch 296](#), [search strategy](#)

This guide supplements the information literacy portions of the FCH 296 course.

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### Welcome!

Welcome to the guide for FCH 296. Here you will find information about what was covered during the information literacy session in class. Use the tabs above to navigate this guide or use the table of contents below.

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Ruth Owens

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### FCH 296 Library Assignment

For your library assignment, you will need to describe your search strategy to find sources for your position paper. You will also need to list (in APA format) at least ten sources. Click on the link below to download a copy of the library assignment for FCH 296. Please type your answers and email the completed assignment to Ruth Owens - [rmowens@esf.edu](mailto:rmowens@esf.edu).

 [FCH 296 Library Assignment](#)

Comments (0)



Name \_\_\_\_\_

### FCH 296 Library Assignment - Develop a Search Strategy

INSTRUCTIONS: Fill in the blanks below and answer the questions about how you conducted your search strategy for your position paper. Using APA style, please list at least 8 citations of articles and/or sources you found for your paper. Add more lines or another sheet of paper if you need more room. See the FCH 296 Research Guide (<http://libguides.esf.edu/FCH296>) for more information. This assignment is due October 15, 2013 and is worth 100 points.

What is your research topic? Write a short paragraph describing your topic.

List keywords relating to your topic:

_____	_____
_____	_____
_____	_____
_____	_____

Describe, in detail, how you combined your keywords to search for articles on your topic.

List at least two (2) databases you searched and explain why you chose each one.

Which database did you like searching best? Why? What did you not like?

According to what you learned in class, what is a peer-reviewed article or journal? (Remember most of your sources must be peer-reviewed!)

Source Citations: Format in APA style as you would in your references page at the end of your paper. You must have at least eight (8) sources listed and six (6) of those must be peer-reviewed.

# Info Lit Class Sessions

- Tips on selecting and developing a topic
- Types of serial literature
- What is peer-review?
- Search strategy
- Databases
- How to retrieve full text
- Citing Sources





# Observations/Results

- Very successful!
- Students did very well on assignments
- “Perhaps students can’t cite well, but good enough”
- Only one student asked for help outside of class
- Positive reactions to class and information literacy sessions as a whole





# Lessons Learned

- More class time spent having students search for articles
- More on specific pieces of citations and what is expected
- Reformat assignment to include more critical thinking questions



# Future Directions

- Develop a metric to evaluate seniors' success in research proposals
- Compare and track sophomores through to senior success and progress
- Link FCH 232 assignment to ESF 200 assignments (search strategy and citations)
- Integrate guide with course in Blackboard



# Thank you!

- [rmowens@esf.edu](mailto:rmowens@esf.edu)

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