

AN ENGINEERING ISSUE, PRACTICE, PROCESS, PRODUCT, OR STRUCTURE: ETHICS AND EDUCATION

LIBRARY RESEARCH GUIDE #4

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INTRODUCTION

For this assignment you will reexamine the issue, practice, process, product, or structure you researched in Writing Assignment #2, placing it within the context of engineering ethics. Further, you will evaluate its application potential for an introductory engineering curriculum.

IDENTIFY KEY TERMS

Many of the search terms you used in Assignment #2 will remain applicable for this assignment. You may wish to add the term “ethics” to your search. For example: “biomedical engineering” AND “ethics.” Also, some of the information you need may not be directly about your topic but will be about engineering ethics in general, or about the impact your topic has had on society. You can ask for assistance developing your list of key terms.

IDENTIFYING RESOURCES

For Assignment #4 you will be using professional society websites, PITTcat, and Engineering Village. Society sites and PITTcat have both been demonstrated previously. EV is new. In addition, you may use any of the databases and techniques you learned for your previous assignments. These include: Academic Search Premier, Business Source Premier, and Expanded Academic ASAP.

CODES OF ETHICS

Your assignment requires you to make use of appropriate codes of ethics published by various professional societies and organizations. The Occupational Outlook Handbook (<http://www.bls.gov/oco>) used in your last writing assignment provides links to most major engineering society websites. Search the Handbook using the term “engineers” and scroll to the bottom of the page under Sources of Additional Information.

Each professional society formats its website differently. Links to codes of ethics are not always readily apparent. Use the search function on these

sites if necessary. The terms “code” and “ethics,” either together or separately, are usually sufficient.

ENGINEERING VILLAGE

Databases come in two basic flavors: multidisciplinary, covering a variety of different topics, and subject-specific, focusing on one particular field of study. The primary database you have used thus far, Academic Search Premier, is multidisciplinary. As you become more familiar with the concepts, processes, and terminology used in the field of engineering, your research will likely gravitate toward engineering-specific databases like those found in Engineering Village. EV is actually a collection of three different titles: Compendex (all fields of engineering), Inspec (electrical, electronic, and computer engineering) and NTIS (government technical reports). Links to each of these can be found on the main library website (<http://www.library.pitt.edu/>) under the Find Articles tab and then the engineering subject page or the Databases A-Z list. You must look for the links to Compendex and Inspec. There is no link labeled Engineering Village.

The databases in EV will be useful for both researching specific topics (such as the Tacoma Narrows Bridge, the New Orleans levees, etc.) and for finding articles that discuss ethics and education in engineering in a broader context.

PITTCAT

You have already used PITTcat in conjunction with databases like Academic Search Premier to identify journals made available by the University of Pittsburgh, and to identify books on a given topic. For this assignment, books again may be of use

As with your last assignment, select the Keyword search tab (rather than Author/Title) since you will be looking to identify material on your topic.

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CONSTRUCT EFFECTIVE SEARCHES

In the last two writing assignments, you were introduced to the following search strategies:

- Limit terms to specific fields, i.e. Title
- Use of Boolean Operators AND and OR
- Use of Truncation symbols

Continue to work with these search strategy techniques in the Engineering Village databases and in PITTCat when you do research for this assignment.

EVALUATE RESULTS

Not only must you determine whether or not Pitt owns or provides access to the materials you identify, you are now to the stage where you must begin to assess your search results. Read titles, abstracts and perhaps even the full text. Decide what materials you want based upon their relevancy to your topic. Do not be content with the first five sources you come across. Evaluate if they provide relevant information and if they are appropriate sources for a research paper. If the answer to either question is no, continue searching.

SEARCH AGAIN AS NEEDED

Revision is part of the research process. You may identify additional information needs as you conduct your research. New key terms may come to your attention, or you may find that you need information on an additional aspect of your topic. Continue the research process described above until you have gathered all the material you need to support your paper.

CITE YOUR SOURCES

In your paper be sure to give credit to authors/sources you draw on to develop your ideas. Presenting the ideas or work of others as if it were your original work constitutes plagiarism, and is unethical. Quoting or paraphrasing, and then citing your source allows you to utilize the work of others in an ethical manner.

WHAT YOU HAVE LEARNED

As a result of the writing assignments in Engineering 11 you have been introduced to several skills related to finding and using information. This set of skills is referred to as “information literacy.” At the University of Pittsburgh, information literacy is defined as:

“The skills related to finding and using information in ethical and responsible ways.”

Specifically the writing assignments this term have introduced the following skills and concepts:

- There are many different types of information (and research tools) for engineers
- Construct effective searches
- Interpret search results, select appropriate sources, and search again as needed
- Locate materials online and within the Library
- Librarians can help you with all of the above
- Use information in an ethical manner

Specifically the writing assignments this term have introduced you to the following research tools:

- Research Databases:
 - Academic Search Premier, Compendex, Inspec
- Online Catalog:
 - PITTCat
- Web Resources:
 - Occupational Outlook Handbook from the Bureau of Labor Statistics
 - Society and Professional Organization sites

As you continue on in college you will use these skills, concepts, and tools in future research projects.

ASSISTANCE

The best times to come into the Engineering Library for assistance are Monday, Tuesday, and Thursday, 8:30am-8:00pm, Wednesday and Friday 8:30am-5:00pm. You can also talk with librarians at the Hillman Library Information Desk during other hours and on weekends.