Information gathering is an important task that must be undertaken by an engineering team on any extensive design project. The final design must take into account the prior work done on similar projects, to the extent that information is available. It is important that all team members be aware of the information resources discovered.

Functioning as a member of an interdisciplinary engineering team, you are to search the engineering literature and web resources for information potentially useful in a particular design project. Your lab instructor will assign a topic to your particular seating group within the lab. Members of your lab team are to make independent and non overlapping searches, with different results, in order to gather more comprehensive information for the project.

Your individual report is to identify each source of information so that, using the web, team members can readily access the information you found. The report identifies the useful content available from each source. Don’t attempt to summarize the information, or to write about the topic by using the sources. Instead, your job is to tell why each source belongs in the collection of project information. Tell briefly what it contributes.

Following the first paragraph identifying the topic and commenting on the collection as a whole, the body of your report is a narrative, moving from source to source in a logical manner. In order to do this, you probably need to collect your information in a Word document as you find it, and then edit this document into a report, moving the information into a preferred ordering. Get help if necessary to have the browser and Word active simultaneously. In a real project, your particular organization might well be adopted as the organization of the combined report, depending on what other members find.

Your report should follow the guidelines of Chapters 2 and 3 of your text. Use nonsexist language as suggested on p.25. Use spelling and grammar checking, with the writing style set to Technical (see p.28).

Your web resources for this assignment are

- the science, engineering and technology databases available online through the University of Akron Science Library, and
- the Internet itself, through commonly used search engines.

Science Library databases are to be searched for references to books and articles. The structure of the science library web changes from time to time, but is something like this: On the University homepage, select Academics, then Libraries, then Bierce and Science. On the University Libraries page, under Looking for, select Articles. Under Article Indexes and Data Bases, select Science and Technology. You are presented with a list of data bases, each with a brief description of what they cover. Some cover articles only. One (Safari) covers technical textbooks. Another covers engineering handbooks. Abstracts and full articles can be viewed, and a full reference is often available for each item found. Your time does not permit the review of the full article or book, but be sure to copy and paste full references and significant portions of abstracts in your collecting document. Identify five to eight references and three to five websites.
In your narrative, you are not allowed to use the abstract material verbatim without enclosing quotation marks and an acknowledgement of the abstract as a source. You are to form your references to books and articles into a numbered citation list at the end of the document. See Section 5.3 of the text and the reference list at the end of Chapter 5. Each citation should include authors, title, publisher for books, or publication title for articles, copyright date for books and issue date and page numbers for articles. Book titles are underlined, and article titles are written in Italics. Items are numbered in the order they are cited in the text of your guide.

As reference items are introduced in this narrative, a reference number is included in brackets, as in

“In a very comprehensive article [4], Jones and Merrill discuss . . .”

This allows the references to be included without disrupting the flow of the narrative. The narrative determines the order of listing of the references. Articles, books, and web sites can be placed in any order in your narrative. The relationships among the items should determine the order in which you place them. Make it easy for the team to read and understand what you have found.

For websites, identify any sponsoring company and what kind of information is found. The team will need to know if they will be able to get technical material from the site, or if they will have to contact the company to get it. Use footnotes to give the URL’s. Websites do not appear in the list of references, but a website can be the source of a fully referenced article that does appearing the reference list. In some kinds of literature, references are cited in footnotes. Footnotes are used rarely in engineering articles. Web sites are not cited in lists of references, primarily because they are not peer reviewed for quality and accuracy, and often represent a commercial or personal point of view.