The list of books to read, most of the books appeared to be very focused on a specific interest. Many of the books seemed to be great if I wanted to do something in a very specific field. Those books could be read when and if it was necessary to know a specific topic. However, Jakob Nielsen’s *Usability Engineering* seemed like a title that would imply that the book would cover a broad range of topics that are not necessarily specific to one technology. Nielsen is part of a select few of famous authors that have been discussed in previous courses and so it would be very interesting to actually read one of his works.

*Usability Engineering* was published in 1993 by Morgan Kaufmann and had an original listing price of $32.00. Because of this publishing date, some of the topics may not be completely relevant or applicable to today’s technology. The concepts in the book may have been more concrete in 1993 than they are today; however, the majority of the concepts appear to have been very influential and have effects in the current day. Even fourteen years later, this book still sells for around $20-$25 on popular book-selling websites.

A great deal of this book was directed towards employees and managers within a business. Much of the book had the tone that managers need to address usability issues and that there is an important manner in which to accomplish creating usable products. Nielsen seems to be attempting to convince managers and business owners that they need to address usability issues and address them early in product development. If managers can be convinced that usability engineering is a vital part of product development, there is also a proper process to make products usable in a very cost-effective manner. This book is written and molded in the style of a textbook; however, it presents itself very well.

Having had experience with courses that cover many of these topics, the book did have points where it read very slowly. However, it could probably be assumed that this means that the book is written well for a person that has had little or no experience in this field. People who may not be very familiar with the technologies should have no trouble
reading this book because Nielsen seems to have written this book with managers as a very important audience member. The main point is that anyone interested in making products usable will be able to read this book without having prior knowledge about the field of usability engineering. The book also includes an index so that readers can skip to a given part of the book that may be more specific to a task. Nielsen wrote the book in a way that a reader can skip to a specific section or chapter of the book without being required to read the book in its entirety. Of course, this means that some topics are repeated numerous times and this can make it very redundant when actually reading the entire book.

Nielsen starts the book in the first chapter by giving an executive summary of the book. As an example that this book has a major audience of business managers and owners, the very first section of the executive summary addresses “cost savings” that have resulted from usability engineering. These examples show businesses that saved literally hundreds of thousands of dollars with initial costs that do not exceed much higher than $20,000 for usability engineering. Although previous courses have given these examples, it is very convenient to have these examples as a quick reference to use to show that usability engineering can be very important. Nielsen then addresses the “current” situation with usability engineering and includes even the international situation. Of course, these issues have become outdated by now. However, it is very nice to see the situation of fourteen years ago.

One of the most important parts of this book is in his “Usability Slogans” section of the first chapter. This section has ten slogans that really need to be addressed or recognized when any product is developed. Those slogans are as follows:

- Your Best Guess Is Not Good Enough
- The User Is Always Right
- The User Is Not Always Right
- Users Are Not Designers
- Designers Are Not Users
- Vice Presidents Are Not Users
- Less Is More
- Details Matter
- Usability Engineering Is Process

Although some of these slogans appear to contradict one another, it is clear, after reading the executive summary, that the slogans are understandable and are very important. Nielsen also addresses what are the most important parts of the engineering process that he discusses in this book. He lists these as the minimum usability engineering requirements when creating a product.

In the second chapter of Nielsen’s book, he discusses what he means by “usability.” It includes the following five parts: Learnability, Efficiency, Memorability, Errors, and Satisfaction. Nielsen also address that there are certain trade-offs when designing an interface. An interface that might be very easy to use on the first attempt might lack efficiency and be harmful to expert-users. Conversely, a system that is great for expert users may be very difficult to learn. Nielsen address that it depends on the situation as to how to design an interface.

When testing an interface or creating an interface that is to be used by many people, the designer(s) need to realize that not all users are the same, but some users can be categorized. Certain users may be very skilled while others are quite the opposite.

The next chapter is where some readers might feel detached. Nielsen addresses the history and evolution of user interfaces. This chapter is very interesting because Nielsen shows the limitations of older interfaces, but he also address that older user interfaces are still in use. Just because a new interface evolves does not mean that older interfaces become completely irrelevant. Nielsen writes this as graphical user interfaces are still a relatively new phenomenon and this can make reading this chapter very though. It was interesting to see the history of user interfaces in a simple table and explained well in one chapter.

Nielsen’s next chapter addresses the lifecycle of usability engineering and how to go through the process. This chapter covered almost all of the material that was covered in a previous course that was taught by Frank Ritter of Pennsylvania State University. This chapter was then obviously a bit difficult to read because of so much repeat information. However, this chapter was also very important because it gives a slightly different perspective on many topics and is all located in one chapter of this book. Parallel design was a concept that was covered in this topic was very interesting. Nielsen
proposed that on a given project of a certain importance, multiple designs should be created simultaneously with no communication between designs. This was a very interesting idea about creating products.

After discussing the process, Nielsen discusses certain guidelines about creating user interfaces. He addresses color, layout, language (dialogue/dialect), mapping, memory load, consistency, feedback, exists, shortcuts, error messages, preventing errors, and documentation. Every one of these concepts that he addresses are still recognized as vital to creating a usable products. Dan Saffer’s book titled *Designing for Interaction* address many of the same topics, but covers them in more detail. However, Saffer also wrote his book more than a decade later. What this means is that Nielsen’s concepts are still vital and are still very important to a current-day designer.

Once a product has been created, designers need to test the design to make sure that it is usable. This is where Nielsen goes into great detail about how to properly test products. Again, many of these topics were a review because of previous courses. This does not imply that the chapter was not a very useful chapter. It covers exactly how to ensure that tests are valid and accurate and how they can actually be beneficial to the creation of a usable product. Although testing is probably one of the most important aspects while creating a given product, it is obviously not the only means of gathering data to create a usable product.

Chapter seven addresses how to gather data when not testing users. This is generally for a designer that is involved with creating a newer version of an existing interface or product. Nielsen addresses logging the use of a product and then analyzing this data to see how the interface can be improved. Designers can also use questionnaires or surveys to get user feedback. User feedback can obviously expose large flaws in a product’s design and this can help when creating a newer version of an existing interface.

The next two chapters address standards that may not be relevant in the current day and creating an interface to be used internationally. The standards section just reviews many of the topics covered earlier in the book. The main point of standards is to provide consistency among many interfaces. This can help designers and users because both will know what is to be expected. Unfortunately, the tradeoff is that designers might be limited to a certain extent during the creative process. Nielsen addresses that standards
should not be too strict because it can limit designers’ abilities. He also addresses that poor design that is unusable should not be maintained just for the sake of consistency. The chapter addressing international interfaces essentially points out that great care must be taken. This includes making sure to not use idioms that are only relevant to certain cultures. This also includes the fact that certain colors, shapes, or designs can have very different meanings in different cultures.

Overall, this book was interesting to read because it was such a great review of previous courses. However, this meant that much of the material was being read for at least the second time. The executive summary was excellent and should probably be read by anyone involved with product development in any way, including managers and owners. People who have taken courses probably do not need to read this book because much of the material should probably have been covered. However, anyone entering this field should probably have read this book because it covers so much. It is also a great reference book because it covers so many topics. There is also an extensive bibliography that is included. Any of the topics in this book can be researched in further detail with one of the many sources that are referenced.