You’ll notice that few of these are business books. (You’ll have lots of opportunities to learn about business.) Hopefully this list will be of some service to you in becoming a thinking and caring professional engineer.

1) Dale Carnegie, “How to Win Friends and Influence People”
Management is the art of getting things done through other people. If you are unable to influence other people to agree with your thinking, then your ability as a manager is severely compromised. According to Carnegie, the six ways to make people like you are:

- Remember names,
- Listen well,
- Become genuinely interested in other people,
- Smile,
- Talk in terms of the other person’s interests, and
- Make the other person feel important.

2) Jim Collins, “Good to Great.”
Great companies have particular characteristics. This book examines a number of companies that delivered value over an extended period of time, and analyzes what makes them great:

- Picking leaders who combine charisma with humility, for whom success was not about themselves as a person, but about the success of their company
- Having the right people in the right seats on the bus, who are motivated and adaptable, and who are recognized for their contribution
- Knowing the importance of truth and acting on it, the ability to face the brutal facts without blame, with unwavering faith in future success
- Building progressive momentum by tapping passion, maintaining extraordinary competence, and knowing the key economic driver
- Having the discipline of staying focused on essentials and stopping distractions
- Understanding that technology is best used to accelerate momentum (not to create it)
- Understanding that greatness comes from sustained commitment to disciplined people, disciplined thinking, and disciplined action

3) Peter Senge, “The Fifth Discipline”
This book outlines a systematic approach to analyzing how businesses work and how to turn them into organization that learn (and thus hopefully grow and endure).
http://en.wikipedia.org/wiki/The_Fifth_Discipline
4) Henry Petroski, “To Engineer Is Human.”
This book examines the role of failure in successful design. Not a management book *per se*, but great reading and good links to the kind of risk-based decision making that engineering designers and managers engage in every day. There is a particularly good section on how Space Shuttle managers drifted into poor decisions that led to the Challenger disaster.

5) William Langewiesche, “Columbia’s Last Flight,” Atlantic Magazine, Nov/2003. Subsequently reprinted in Dava Sobel’s book “The Best American Science Writing 2004.” Unfortunately, this is another case study that highlights how engineering managers at NASA were able to convince themselves that an abnormality was not a problem: in this case, big chunks of foam flying off the shuttle at supersonic speeds.

An excellent book on how to display information effectively, including a section on how graphics can be deceiving. A companion book, “The Cognitive Style of Powerpoint,” gives advice on how to give presentations without dumbing down the material, reading your slides to the audience, or confusing people with visual fluff. There is a great case study on how Powerpoint presentations actually affected the decision-making process that led to the Columbia disaster. Check out www.tufte.com.

7) Stephen Covey. “The Seven Habits of Highly Effective People.”
This is a well known book. To be honest, I haven’t read the whole thing. Not because it isn’t interesting, but the list of habits makes so much sense that I didn’t need three hundred pages of reinforcement. Here they are:

- Be proactive (take responsibility for your attitudes and actions).
- Begin with the end in mind (plan clear objectives).
- Put first things first (organize and manage your time for the things that are really important).
- Think Win-Win (commit to explore options with others and at least try to agree).
- Seek first to understand, then to be understood (differences in perception can lead to real problems between people; listen first, and try to be non-judgmental).
- Synergize (an overused word for creative cooperation and teamwork)
- Sharpen the saw (sometimes you have to renew yourself).

There is a new book called The Eighth Habit, which is to

- Find your voice and inspire others to find theirs.

8) Edward de Bono. “How to Have a Beautiful Mind.”
Edward de Bono has spent his life helping others to understand how to think and to understand how others are thinking.

9) Jared Diamond, “Guns, Germs, and Steel”
This book offers a broad view of how technology shapes society, written by an evolutionary biologist.

A commentary on the role of science and technology in modern society, the toolkit for skeptical thinking alone is worth the price of the book.

The best book I’ve ever read on how to write clearly. It is brief and highly effective.

An anthology of writings by influential thinkers through the ages. This is the book I took with me when I backpacked around the world. Out of print, but available used on-line.

13 Kurt Vonnegut, “Player Piano.”
More social commentary than anything, this work of fiction is a bit dated but it remains a celebration and a warning about the role of engineers and managers in modern society.

What I’m Reading Now:

Mark Jaccard. “Sustainable Fossil Fuels.”