

E SC 496A (Sched. Number 868888)/E SC 497A (Sched. Number 866350)

Business Opportunities in Engineering

Fall Term 2007, Monday Evenings 6:30 to 8:25PM

(2 credit course with 1 credit independent study opportunity, credits can be used towards the Entrepreneurship minor available here at PSU or as a technical elective in ES&M)

The principal goal of this course is to inform engineering students of business opportunities in Engineering. Engineers can too, besides business majors, become highly successful in business, job satisfaction, acquiring wealth, entrepreneurship, climbing the corporate ladder, and acquiring power and leadership. Students must open their eyes, ears and minds to the many possibilities that lie on the horizon. Engineers can use specialized engineering skills to instill efforts of creativity for profit. The course will move students from their isolated corners in the laboratory to the forefront of technology transfer, business, leadership, and profit. In addition, of great significance in today's engineering and business world, constraints and opportunities via economic, environmental, social, political, ethical, health and safety, manufacturability, sustainability and contemporary issues will be pointed out via design and financial gain.

Typical topics that will be covered in the course are listed below.

Entrepreneurship	Recognizing Opportunity
The Corporation	Managing Expectations
Leadership	Winning
Management	Work-Life Balance
Selling	Being Creative
Marketing	Negotiation Principles
Advertising	Intellectual Property and Patents
Mission Statement	Product Development
Goals	Government Initiatives
Vision Statement	Venture Capital
Quality Programs	Investment Fundamentals
Teamwork	Communication Skills
Accounting Principles	Persistence
Indirect and Direct Costs	Experience
Fringe Benefits	Individual Success Stories
Cash Flow	Engineering and Business Ethics
Business Philosophies	The Business Plan
Partnerships	Networking

This 400-level course will also be cross-listed at the 500-level so that graduate students in The College of Engineering can take the course. The undergraduate course project will be on any engineering product, hypothetical or real. The graduate course project will be different in relating specifically to the student's research area.

Bibliography Partial List

1. Allen, David, *Ready for Anything: 52 Productivity Principles for Work & Life* (New York: Viking Penguin, 2003).
2. Boylan, Bob, *Get Everyone in Your Boat Rowing in the Same Direction* (New York: Barnes and Noble Books, 1995).
3. Buffett, Warren E. and Lawrence A. Cunningham, ed., *The Essays of Warren Buffett: Lessons for Corporate America* (New York: The Cunningham Group, 2001).
4. Carnegie, Dale, *How to Win Friends and Influence People – Revised Edition* (New York: Pocket Books, 1981).
5. Clason, George S., *The Richest Man in Babylon* (New York: Signet, 1998).
6. Covey, Stephen R., *The 7 Habits of Highly Effective People* (New York: Free Press, a Division of Simon & Schuster, Inc., 1989).
7. Drucker, Peter F. with Joseph A. Maciariello, *The Daily Drucker* (New York: Harper Business, HarperCollins Publishers, Inc., 2004).
8. Fisher, Roger and Daniel Shapiro, *Beyond Reason: Using Emotions as You Negotiate* (New York: Penguin Group, 2005).
9. Gitomer, Jeffrey, *Little Red Book of Selling* (Austin: Bard Press, 2004).
10. Goldberg, David E., *The Entrepreneurial Engineer* (New York: John Wiley & Sons, Inc., 2006).
11. Griffith, Joe, *Speaker's Library of Business Stories, Anecdotes, and Humor* (New York: Barnes and Noble Books, 2000).
12. Harrison, Thomas, *Instinct: Tapping Your Entrepreneurial DNA to Achieve Your Business Goals* (New York: Time Warner Book Group, 2005).
13. Hiam, Alex, *Making Horses Drink: How to Lead and Succeed in Business* (Canada: Entrepreneur Press, 2002).
14. Kiyosaki, Robert T. with Sharon L. Lechter, *Rich Dad, Poor Dad: What the Rich Teach Their Kids About Money—That the Poor and Middle Class Do Not!* (New York: TechPress, Inc., 1997).
15. Mandino, Og, *The Greatest Salesman in the World* (New York: Bantam Books, 1968).
16. Maxwell, John C., *The 21 Indispensable Qualities of a Leader* (Georgia: Maxwell Motivation, Inc., 1999).
17. Ringer, Robert, *To Be or Not to Be Intimidated?* (New York: MJF Books, 2004).

18. Robinson, Simon, Ross Dixon, Christopher Preece, and Krisen Moodley, *Engineering, Business and Professional Ethics* (New York: Elsevier Science & Technology Books, 2007).
19. Templar, Richard, *The Rules of Work: The Unspoken Truth About Getting Ahead in Business* (New Jersey: Pearson Education, Inc., 2005).
20. Tracy, Brian, *Goals* (San Francisco: Berrett -Koehler Publishers, Inc., 2003).
21. Trump, Donald J., Robert T. Kiyosaki, Meredith McIver, and Sharon Lechter, *Why We Want You to be Rich: Two Men – One Message* (New York: Rich Press, 2006).
22. Welch, Jack with Suzy Welch, *Winning* (New York: Harper Collins Publishers, Inc., 2005).