

Transitioning from College to Industry

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Student in Industry Day

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Outline

- Differences between College and Industry
- Evaluating a company
 - Case study
- Accepting a position
- First year on the job
- Succeeding in your position
- Final thoughts

What is Different?

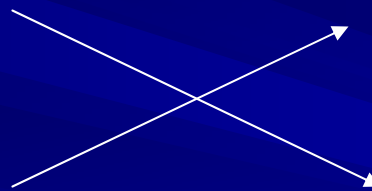
■ Besides Everything?

■ College

- Technical
- Written
- Oral

■ Industry

- Oral
- Written
- Technical



- Projects are not artificially terminated by the end of the semester. Now, you must be a closer!

New World Order

- You will probably not work for the same employer for your entire career.
- You may have a new employer every 3-5 years.
- You may spend time working outside the country.

- Or as Harry Hutchinson of ASME's Mechanical Engineering Magazine said to me once,
 - “If you are an engineer in a company, there is an accountant somewhere trying to put you out of work!”

Graduation Job Search

- Your job search starts 1-2 years before you graduate.
 - Start researching (articles and the internet) the companies that interest you
 - Talk to current and former employees
- Your resume should be a continual work in progress from your first summer position until you retire.
- However, the greatest advance in your resume should take place fall semester of the year you graduate.

Colorado Mechanical Engineering Employment

- Colorado is not the best state in the U.S. for mechanical engineering employment.
- There is minimal manufacturing, and manufacturing tends to drive all the other mechanical engineering jobs such as design, analysis, research, and development.
- Past Large Employers- Coors, Gates, Martin Marietta, Ball, Petroleum Companies
- Demographic Breakdown
 - Aerospace
 - Biomedical
 - Construction/Public Utilities
 - Computer peripherals

So what is a good job? And what is a good employer?

- Philosophically, we all know that it is not just high pay.
- A good company treats its employees with respect and provides a stable employment environment.
- A company has to remain profitable in order to provide one with a stable position.

Case Study-Ball Aerospace

- Ball Aerospace has both a local and national reputation for being both a technology and a family-oriented company, quite a feat in the aerospace business.
- Ball has been known for its work on the Hubble Telescope and is currently working on the James Webb Telescope.
- According to engineers at Ball, the company does not tend to overhire when a new program is started, which results in fewer layoffs over time.

Company Personality

- Each company has its own personality, character, and ethics.
 - These attributes can be both good and bad.
 - It is best to find a match between you and the company. Companies will also hire based upon this match.
- How do they really operate?
 - Ignore what they say in the annual report or in national publications.
 - If the president is unethical, the company is typically unethical. This is the real trickle down theory!

Interviewing

- Research the Company.
- Dress appropriately.
- Expect to interview with your potential direct supervisor and peer group.
- Be prepared to state what you want to do and how much you expect to make doing it.

Average Undergraduate Salaries

Degree	Average Starting Salary
Mechanical	\$48,578
Electrical	\$51,124
Computer	\$51,297
Chemical	\$52,539
Civil	\$42,056

- 2004 survey by the National Association of Colleges and Employers in Bethlehem, Pa

Decisions, Decisions, Decisions

- How to know when to accept an offer?
 - It feels right.
 - There are no looming issues.
 - The pay is at or above the national average.
 - Benefits are reasonable.
 - The work is reasonable for someone with your credentials.
 - You think you can work there.

First Year on the Job

- **Avoid Entangling Alliances**
 - Not talking about potential significant others!
 - Be open to everyone, but somewhat guarded.
 - Watch and learn. For the first 6-12 months you are a casual observer.
 - Do not take political sides in the company. That can be year 2!
- **Be Sponge Bob or Bobbie**
 - Soak up everything that you can, technically, politically, etc.
- **Socialize with the Other New Hires**
 - Hey if you all go the distance, you and your compadres will be running the show one day.

Succeeding at Work

- What is the most important thing to those around you?
- How bright do you have to be?
- How efficient do you have to be?
- How many hours a week do you have to work?
- When should you go to lunch?
- How should you walk around the company?
- How should you treat the staff assistant in your area?

Succeeding at Work

- Play well with others.
- A mind like Einstein's is not required (his is now in a bottle!).
- Don't be the bottleneck.
- Work at least 42 ½ h/wk, preferably at least 45.
 - Most important 2 ½ hours. Show up ½ h early.
 - Second most important. Stay ½ h late.
- Go to lunch at 11:30 am.
- Walk everywhere with your notebook.
- Treat the staff assistant the same way you would the vice president of your division.

Initiative

- Show some initiative.
 - Some people think showing up for work is showing enough initiative.
- Do something!
 - Don't wait to be told what to do.
- What do you do if the boss leaves on a one month vacation your second month on the job?

Exceed Expectations

- Practice exceeding expectations.
- Most people asymptotically approach the expected results.
- Only about 5% will exceed expectations.
- You do this in order to raise your long-term performance, not necessarily for the company.

Most Important Thing

- Contribute to the company's short and long term well being.
- Notice that regardless of inherent talent level, especially technical, if you contribute to the company's bottom line you will be successful.
- The company has a real simple test.
 - Are you contributing or not?
 - Most companies have a sales/employee target.

Plan Your Career

- Visualize yourself 5, 10, 20 years down the road
 - Interpolate
- Where is your next position?
 - In another group in your company
 - With either a supplier or customer

Career Control

- You want to control your career, not have your career control you.
- You do this by being recognized both internal and external to the company as being a contributor.

Final Thoughts

- A good company for you is one that does not just meet your need for survival (read: food and mortgage payment), but fulfills your higher needs.
- Don't we all want to work for a company that treats us with respect, values our contribution, provides growth opportunities, and some semblance of stable employment?
- You want to work for a world-class employer that treats you in a world-class manner.
 - You want to return the favor!

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