

Carl Selinger's
“Stuff you don't learn
in engineering school”

Welcome/Keynote Speech

Young Engineers Forum

Orlando – 11/6/05

The real world invites/bites ...

- ‘I wish the real world would stop hassling me!’
 - » Matchbox 20
- “Life goes on, long after the thrill of living is gone.”
 - » “Jack & Diane” John Mellencamp
- “Are engineers the only ones who have to be *told* to have fun?”
 - » Douglas Selinger, non-engineer

Openers ...

- Welcome to the real world!
- The real world isn't neat
- There's never enough time
- You need to learn and apply a toolkit of soft skills
- Find out what works for you
- Who wants to be a “CEO”?

Surprise! You already *are* the CEO ... of *you*!

Remember: *technical competency* is the core of your career success!

Survey of Non-Technical Skills

- Survey among ASME managers
- How would you rate the “importance” of a dozen non-technical areas?
- How would you rate the “level of ability” of young engineers you know?

Survey Results - Biggest “Gaps”

- Setting priorities
- Taking responsibility
- Public speaking
- Risk-taking
- Interpersonal skills
- Decisiveness
- Action oriented (continued)

Survey Results - Biggest “Gaps”

- Teamwork
- Effective at meetings

OK ...

- Leadership skills
- Writing
- Negotiating
- Creativity
- Ethics

Survey Results – Some Issues

- Grads too specialized & don't understand interdisciplinary nature of modern engrg.
- Need to work with ASEE & ABET to take more communications courses
- Creating an awareness among students that real world issues are important
- Our responsibility as leaders to mentor new engineers.
- Reduced class hours limit time to teach technical as well as non-technical issues

So what are we to do?

- A role for the **college**: teaching maturing young adults what they effectively can
- A role for the **engineering organization**: developing and nurturing “real world” skills
- *A role for the individual: accepting responsibility for one’s development*

“Stuff you don’t learn in engineering school”

What can we do?

- Acquaint engineers with real-world issues
- Motivate them to build their strengths
- Target areas they need to develop
- Make them more effective and happier
- In professional lives **and** personal lives

In the following session:

‘Essential Habits for Success for Engineers’

The Bottom Line for Young Engineers

- Employers expect you to know the technical stuff
- Your abilities in the soft nontechnical skills will be *discriminators* in getting hired, retained and promoted.