Success Strategies in Engineering and Beyond

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Overview

- Speaker Background
- Tools of the Trade
  - Time Management, Prioritization, Focus
- Deeper Dive: A Case Study
- Bridging the Gap: Life Skills in the Work Place
- More for the Toolkit:
  - Managing Relationships, Setting Goals, Pathfinding
The Person Behind the Podium

- Graduated 2014 Aerospace Engineering
The Person Behind the Podium

- Started interning at Northrop Grumman in 2013 Junior year, hired on full time after graduation

- My day job:
The Person Behind the Podium

- But really...
- Electromechanical Engineer

- My day to day
  - Drafting, project data management
  - Generating ECOs and ECRs
  - Designing and redesigning test fixtures
  - Thermal analysis
The Person Behind the Podium

- Coolest thing from Undergrad

![Images of a person standing next to a NASA spacecraft and holding a UC San Diego research team banner.](image)
Tools of the Trade: Basic Life Management

1. Focus
2. Prioritization
3. Time management

Why are they important?
(1) Focus: Eye on the Ball

- Often overlooked as a skill, this can be summarized very quickly
(2) Prioritization

- Knowing when to panic
(2) Prioritization

- Your time is a resource

Imagine you have $100 to spend every day
  - $5 task: cook a snack
  - $10 task: do the dishes
  - $20 task: go to class
  - $40 task: go to work
  - $80 task: one class worth of homework

- And so is your willpower
(3) Time Management

- Quite possibly the most important skill out there

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(3) Time Management

- Some generic advice
  - Buy a planner (not free)
  - Use a management app (free!)
  - Use google calendar (free!)

- A more specific method: Time Blocking
  - If you’ve started prioritizing, this falls in line pretty well
## (3) Time Management

- **Block scheduling**

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<td>AP 1</td>
<td>CP 1 85</td>
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<td>CGA Meetings</td>
<td>Minutes Block C</td>
<td>Minutes Block D</td>
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<td>CP 1</td>
<td>CP 2 85</td>
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<td>45 Minutes</td>
<td>Minutes Block C</td>
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<td>Block A</td>
<td>CP 2</td>
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<td>LUNCH</td>
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<td>45 Minutes</td>
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<td>Block A</td>
<td>Minutes Block D</td>
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(3) Time Management

- Filling in the blocks:
  1. Class times
  2. Midterm/homework due dates
  3. Work
  4. Rec classes/gym
  5. Project teams
  6. Homework
  7. Socializing
  8. Sleep

- This order is very much a personal choice, based on your own priorities
(3) Time Management

- The advantage:
  - Time tracking
  - Optimization
  - Allocating of resources

- Very analytical approach
Deeper Dive: My Personal Method

1. I write everything (everything!) down in a notebook
2. I fill in my schedule starting with class times, homework due dates, work schedule, project teams, homework, and socializing in that order, using time blocking
3. If I overrun on time, track back to find where that time is coming back to me
The Result

- I graduated in four years from Revelle with no summer school, with honors

- I had two jobs for most of undergrad, ~30 hrs/week of work
  - Working on campus, for a professor, and at an internship

- Always at least one club, usually one project

- I went out a couple nights per week
The Downside

- Overloading your plate is an easy recipe for getting overwhelmed

**WHAT TO DO WHEN YOU’RE OVERWHELMED WITH WORK**

**STEP 1:** Make a list of all the things you have to do.

**STEP 2:** Categorize them based on their importance.

**STEP 3:** Realize you just made it worse.

“AHH! THEY’RE ALL IMPORTANT!!”

“Piled Higher and Deeper” by Jorge Cham, www.phdcomics.com
Again, why are these skills important?

These skills go beyond school and easily into the workplace.

I actually learned the name “time blocking” from a senior engineer at Northrop (after I asked why he was never available on his work calendar).

School is just a staging ground for your career – and you’re expected to learn these skills now, not later.
Bridging the Gap: Life Skills in the Work Place

- Getting an Engineering job is about much more than technical skill (its networking and past experience!)

- Well, and personality/capability
Personal Anecdote

- How I got hired at Northrop Grumman
A Few More for the Road:

- Another few important tools for your tool kit:
  1. Managing relationships
  2. Setting goals
  3. Pathfinding
(1) Managing Relationships

- Basic social skills for school and office
  - AKA Networking
  - Email people back
  - Keep your appointments
  - Be consistent, dependable, and respectful

- Respect other peoples’ time!
(2) Setting Goals

- Back to self-awareness and self-management
- Again, in school, and the workplace
- This is a tried and true topic, so have an anecdote!
(3) Pathfinding

- Undergrad is a shockingly short period of your life
  - Four years of school, FORTY years in the workplace

- A lot of us are just focused on survival, or enjoying the moment

- Take the time to think about what you want to do, and try as many new things as possible

- Always be on the lookout for new opportunities
Any Questions?

- My contact information:
  - Available in front on business cards
Backup Slides – Tips for Internships

- How do I get from being a freshman with no job experience to an engineer with an actual job?
- How do I get an internships?
- How do I get project job/experience?
Backup Slides – Tips for Internships

- Getting a foot in the door
  - Math Dept.
  - Physics Dept.
- Leverage office hours
- Anecdote!

- What working for a professor can do for you
  - Perpetual employment
  - Letters of rec
  - Networking
Projects projects projects! (and clubs)
  ◦ If you can’t/don’t want to job, get hands on experience (and something interesting to talk about at a job interview), by doing a project!
  ◦ Get applicable project knowledge and skills

What I did:
Backup Slides – Tips for Internships

The pattern:

- Look for opportunities
- Ask to get involved
- Email your professors back
- Maintain your grades