Tales of a 24th grade nothing:
A survivor’s guide to graduate school

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Graduate school is hard

- 4-6 year commitment (for PhD)
  - Classes and teaching
  - Research, writing, and presenting
- The journey is a tortuous, non-linear path
- Lack of literature dealing with the ‘grad student journey’
- Construct a map that helps current & future grad students navigate the high seas of grad school
Q: How do you cram 6 years of advice into a 10 page paper and 15 minute talk?
A: You don’t

- Why grad school?
- The first year
- Conducting research
- The advisor/student relationship
- Maintaining a personal life
- Grad school potpourri
- Publishing and presenting

- Teaching
- Managing undergraduates
- Running a lab
- Qualifying Exams
- Preliminary Exams
- Writing the thesis
- Defense
- Etc
Choose your own adventure. . . .

- North Carolina State University Graduate School
- Enrolled in the PhD program in CHE (Fall 2004)
- Defended thesis (March 2010) and graduated (May 2010)
Why should I attend graduate school?

• Industry vs. Academia

• My motivation:
  – Undergraduate research (REU programs)
  – Passion for teaching

• When applying to graduate school
  – Shoot for the stars
  – Keep an open mind

• Make sure you really want that degree
Surviving the first year

- Can possibly include:
  - Taking classes
  - Selecting an advisor
  - Teaching
  - Getting started in the lab
  - Qualifying exams

- Make friends with your classmates
- When choosing an advisor:
  - Ask lots of questions
  - Don’t hesitate to take the initiative
  - Discuss your top choices with your classmates
  - Always have a back-up plan
Stand back, I’m about to try science!

- Don’t be afraid to screw up
- Don’t be shy about asking for help
- Branch out and try new methods and techniques
- Even negative results can still be useful
Student-advisor paradox

Problems

• You can spend days to weeks in the lab without a purpose, producing nothing

Solutions

• Talk to your advisor and utilize their knowledge
Student-advisor paradox

**Problems**
- Projects can get cancelled
- Funding can dry up

**Solutions**
- This is how research goes
- Get over it and move forward
Publications and presentations

- Attend conferences
  - Great networking
  - Get advice from peers
  - Opportunities to showcase your research

- Write at least one first author publication

- Believe in your writing and research
  - Be proud of what you’ve done
  - Keep finding new joy in your work
  - Write papers outside of your thesis research
Graduate school is like a box of chocolates

• More than classes and research
• Take advantage of endless opportunities
  – Teach a class
  – Get a summer internship
  – Apply for a fellowship
  – Mentor undergraduates
  – Initiate collaboration with other faculty, departments, and universities
  – Tutor
  – Perform education outreach
  – Get involved in recruiting
Wait. . . . I’m supposed to have a personal life?

• Ensuring that you have a personal life is probably the most important aspect of graduate school

• Maintain an equilibrium between school work and your personal life
A Call to Arms!

- Grad school is difficult, but not impossible

- This paper was written as a baseline for all new, current, and past graduate students – a starting point for all of you to tell your story

- Expand and improve on what I’ve written, pass along YOUR knowledge and experience to help better prepare the next round of grad students

- Ultimately, if we can survive getting our PhD – we can survive anything!
Questions?