

# Going to Graduate School

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# What is the deal with Graduate School?

- Students of your quality and experience (LANL DSS) should expect to receive a stipend to attend graduate school of roughly \$20000 per year (plus tuition).
- A much more collegial atmosphere than undergraduate school.
- Comparable to DSS but with formal classes to take
  - Work with other students as part of research teams
  - Projects will require you to learn and apply technology beyond what you have been exposed to in your formal classroom education
  - Project may not be well defined and will not have known answer
  - Advisor will not always be available for consultation
- Usually you take about 8 classes and write a MS thesis (some exceptions)
- PhD is two more years of classes, some exams (qualifying, preliminary, oral and written) followed by a dissertation.
- Going to graduate school enhances your chances of working on very interesting technical problems after your graduate.
- Engineers with graduate degrees tend to get paid more than those with only undergraduate degrees, and definitely have more fun in their careers!



# What you need to do to go to graduate school

- Apply to your three or so of your favorite Universities this fall
  - Include your current institution at least as a base line
  - Indicate interest in a PhD program, highlight LANL DSS
- Take the GRE exam and get a really good score
- Establish three really good references (one from LANL)
- Look for and apply for all fellowships and grants for financial support
  - NSF Fellow (about 25 a year in ME)
    - ☞ [www.ehr.nsf.gov/dge/programs](http://www.ehr.nsf.gov/dge/programs)
  - DOD Fellowships
    - ☞ [www.asee.org/ndseg](http://www.asee.org/ndseg)
  - NASA Graduate Student Researchers Program
    - ☞ [www.nasa.gov](http://www.nasa.gov)
  - DOE Physical Science Consortium Fellowships ([www.npsc.org](http://www.npsc.org))
  - DOE Computational Science Graduate Fellowships ([www.krellinst.org/csgf](http://www.krellinst.org/csgf))
  - Private foundations, (e.g. Hertz: [www.hertzfndn.org](http://www.hertzfndn.org))



# Other Financial Aid

- Most common form of financial aid is to receive department teaching assistantship
  - Grading papers, teaching labs
  - About the same level of funding but sometimes only 9 months
- Some departments offer departmental research assistantships
- Some departments offer additional financial awards over and above the assistantships
- Society Awards (ASCE, ASME, AIAA, IEEE)
- Other local funds for various characteristics (minority fellowships, women in engineering, etc.)



# How to decide which offer to take (March 05)

- Visit the universities that you are interested in for both academic and social environment (March 05)
- Look for a good advisor (Web search before applying)
  - Topic of interest to you
  - Good funding
  - Good personality
  - Good record of placement
  - Speak with current graduate students and seek candid advise
- Compare offers (tuition included or not, cost of housing, amount of stipend and fees) and resources
- Remember technical excellence is critical, but do not rely solely on it; it is only one tool in your box. Develop interpersonal skills. Understand the culture of the organization you are a part of. Develop a clear understanding of the overall objectives of whatever you're doing, and focus on them. If they aren't clear, make 'em up and focus on those!



**Follow your dreams!**

