

# Why are YOU here?

Certification

Knowledge/expertise in content areas

Other work skills

Get what you need for certain types of jobs

[Delay employment?]

Do it in a timely manner

How is graduate education different from undergraduate education?

# Why do Research?

Learn a set of work skill that you can't get from classes

- Significant writing task
- Independent/unstructured work task
- Do something “real”

Become a true expert in something

It's the only way to get a PhD

A key concern with doing a research degree:

- When will it end?

# Faculty Effects on Timely Graduation

Faculty do *not* want to keep you here as a perpetual slaves.

Faculty *do* have many conflicting demands on their time that might make them inattentive to your progress.

Faculty do *not* necessarily have good management skills.

Students should be proactive in fostering good management practice by their supervising faculty.

# Graduate Research

Steps to a degree:

- Take a bunch of classes
- Find an advisor
- Pick a topic
- Do the work
- Write it up

**WRONG! WRONG! WRONG!**

This is how to delay (or kill) getting a degree.

# Graduate Research: How to be Successful

Initially:

- Don't just take classes – interact with faculty their students (research groups)
- Attend talks, read papers

Get PhD qualifier (or equivalent) out of the way early.

Identify an advisor early, and get involved in research

- GRA, Independent Study, or volunteer
- Research topic often comes from the work, not work from the topic.

Set deadlines or milestones... And keep them!

Intersperse writing with working

- Documenting literature review is an ongoing process
- Constantly write progress reports
- Publish if possible

Learn how to write!

# Picking an Advisor

How *not* to be successful:

- Pick an advisor on one criteria, such as support, research area, or personality.

How to be successful: Pick the best compromise (for YOU!) of the following indicators.

- Research area
- Support opportunity
- Physical environment for getting work done
- Intellectual environment for getting work done
- Peer support system (research group)
- Personality: Interaction at a personal level
- Personality: Management style (hands on vs. hands off)
- Level of attention
- Track record on timely graduation
- Professional advancement

# Working with an Advisor

The most important thing is frequent interaction

- Meet often
- Document your progress (in writing)
- Have short and long-term milestones

# The Role of the Advisor

- Serves as your mentor
- Serves as a source of technical assistance
- Helps you do the best work you are capable of, given constraints of time, ability, knowledge, etc.
- Helps you find resources you need (financial, equipment, psychological support)
- Helps you prepare for preliminary exam and defense
- “Keeps the Department and other hostile entities off your back.”
- Introduces you and promotes your work to important people in the field
- Gives you advice and direction on your work
- Gives you advice on career directions
- Helps you find a job

# The Role of Research Topic in Deciding Your Future Career

Independent Study: None.

Masters Thesis: Minimal.

PhD: As much or as little as you want.

Moral:

- The topic has to motivate you to finish your degree.
- It *doesn't* need to dominate the rest of your life.

Corollary:

- Don't obsess. Do work.