

**REU Graduate School Panel Discussion: Possible Topics**

A. Planning your undergraduate curriculum

1. Which courses should you take?
  - a. lecture-based experience
  - b. lab experience (exposure to techniques, etc.)
2. How important are letters of recommendation and how do you get them?
  - a. when to request them
  - b. how to request them
  - c. how many to request

B. GREs

1. When to take them?
2. How many times?
3. General and/or subject test?

C. Choosing a graduate school

1. Gathering preliminary information
  - a. which schools to investigate?
  - b. how many schools to investigate?
  - c. what to investigate
    - i. list of faculty and their research interests
    - ii. graduate bulletin
    - iii. course list
2. Deciding which schools to apply to
  - a. potential primary mentor
    - i. what to do if the school requires you to apply to a specific faculty member?
  - b. reputation
  - c. size of faculty, graduate program

- d. key course offerings
- e. relevant additional faculty
- f. graduate student support

### 3. When to apply

## D. Choosing a mentor

1. Using the published literature
2. Contact before applying
3. Visiting
  - a. judging the personality of mentor
  - b. judging the "personality" of the mentor's lab (other students, etc.)
4. Mentor's ability to place students in post-graduate positions
  - a. where do the mentor's students go after receiving their degree?
  - b. what is the mentor's reputation?

## E. Funding

1. Types of financial support available from the institution
  - a. research assistantships
  - b. teaching assistantships
  - c. advantages/disadvantages of each
2. Other types of support
  - a. NSF graduate fellowships
  - b. Regents scholarships
  - c. other specific programs (e.g. DOE global change fellowships, etc.)
3. Probable financial status while in graduate school
  - a. will you be heavily in debt when you finish?

## F. Masters vs. Ph.D. programs

1. How to decide?
  - a. what if you're not sure you want to do a Ph.D. right away?

b. what options does each open after graduate school?

2. Advantages and disadvantages of each

a. possible funding priority for Ph.D. students

b. faculty attitude toward each

c. can you start in a Ph.D. program and quit with a MS?

G. Choosing a thesis/dissertation project

1. Working on your mentor's project vs. establishing your own

a. funding possibilities

b. “intellectual property rights”: can you take your project with you when you leave?

2. How to identify a hot area

a. will it still be hot when you're on the job market?

3. Question-oriented vs. organism-oriented projects

4. Scope of project

a. what can be done in the time you have?

H. Conducting your research

1. How to select a study system

2. How to obtain funding while a graduate student

a. university sources (mentor support, departmental support, institutional grants, etc.)

b. national sources (NSF predoctoral fellowships, other federal and private agencies)

3. How to deal with temporary setbacks

4. When to switch projects

5. Collaboration

a. with other faculty

b. with other graduate students

6. Publishing your work

a. when to start publishing?

b. which journals to choose?

## I. Other concerns while in graduate school

1. Potential insecurity upon arriving at graduate school
  - a. how to realize that you belong
2. Courses to take
3. Teaching experience
4. Interaction with faculty
5. Interaction with graduate students

## J. Preparing for the job market

1. What kind of job do you want?
  - a. academic positions
    - i. primarily research institutions
    - ii. teaching and research institutions
    - iii. primarily teaching institutions
  - b. non-academic positions
    - i. government
    - ii. private sector
2. How to put yourself in the best position to compete for limited positions
  - a. publishing your work
  - b. activity of mentor in placing students
  - c. personal contacts
    - i. within your institution
    - ii. outside of your institution
  - d. post-doctoral experience
  - e. teaching experience