

# Responsible Conduct of Research Roles and Responsibilities

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# The Research Enterprise

- The ultimate goal of research training is:
  - to produce independent researchers
    - who can establish their own research programs,
    - take on trainees, and
  - help research-dependent disciplines grow.

# Helping Research-Dependent Disciplines Grow: The Role of Mentors & Trainees

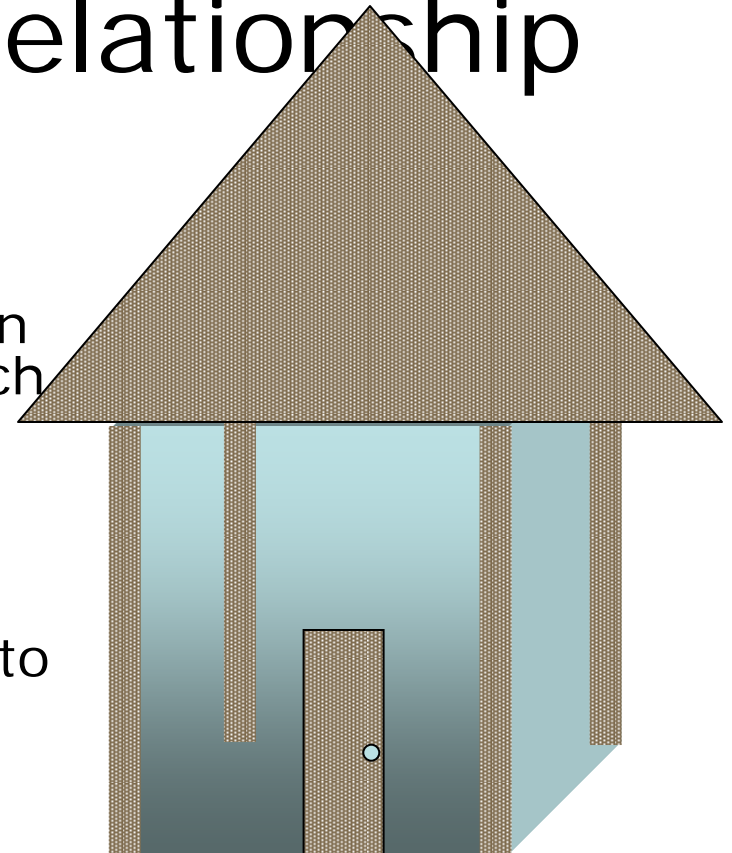
- Is important to everyone because research relies heavily on self-monitoring
- Is important to the mentors because s/he is committed to advancing the discipline
- Is important to the trainee because
  - s/he is committed to advancing the discipline
  - s/he is learning the research milieu through this experience
- Is important to both the mentor and the trainee because s/he is interested in personal success

# Questions that Surround the Mentor-Trainee Relationship

- How much time should the faculty devote to mentoring?
- How much time should the student devote to research?
- Who gets credit for ideas that take shape during the course of shared research?
- Who owns the results?
- When does a trainee become an independent researcher?

# The 4 Pillars of a Sound Mentor-Trainee Relationship

1. A clear, ongoing understanding of mutual responsibilities
2. An ongoing commitment to maintain a productive and supportive research environment
3. Proper, ongoing supervision and review, and
4. An ongoing understanding that the main purpose of the relationship is to prepare trainees to become successful researchers



# Basic Responsibilities for Mentors

- ✓ Creating a supportive, trusting research environment for ALL
- ✓ Setting and communicating expectations for trainees regarding the amount of time they are expected to spend on the mentor's research,
- ✓ Establishing and communicating criteria that will be used for judging performance,
- ✓ Establishing and communicating how responsibilities are shared or divided in the research setting,
- ✓ Determining and communicating standard operating procedures,
  - ✓ such as the way data are recorded and interpreted and
  - ✓ how credit is assigned, i.e. how authorship and ownership are established

# Basic Responsibilities for Trainees

- ✓ Contributing to a supportive, trusting research environment for ALL
- ✓ Do assigned work in a conscientious way,
- ✓ Respect the authority of others working in the research setting,
- ✓ Follow research regulations and research protocols, and
- ✓ Live by agreements established for authorship and ownership.

# Don't Forget the Little Things

- Lab procedures
- Vacations/leaves/absences
- Being available
- Fixed meetings

# Graduate Program Responsibilities

- Student orientation
- Encourage high standards of mentoring
- Offer counseling when difficulties arise
- Establish an appeals process for cases of conflict
- Establish guidelines regarding normal progress in the graduate program
- Provide written statement of policies and procedures
- Insist upon ethical and professional conduct and academic integrity
- For a full list see, Graduate Education at Purdue available at: <http://www.gradschool.purdue.edu/downloads/GradEd.pdf>

# Graduate School Responsibilities

- Oversee graduate education
- Maintain permanent academic records
- Approve and maintain the plan of study
- Authorize scheduling of preliminary exams for PhD students and final exams for all degree candidates
- Audit records to certify each student for the appropriate degree
- Oversee policy
- Certify graduate faculty
- For a full list see, Graduate Education at Purdue available at: <http://www.gradschool.purdue.edu/downloads/GradEd.pdf>

# Faculty Advisor Responsibilities

- Talking with students to figure out what their goal is
- Talk about Courses required, plan of study, exams, proposal idea, and graduate committee, regular meeting of the committee to get input,
- Encouraging to learn new techniques/ideas
- Developing writing skills/ presentations/ reviewing manuscripts
- Provide regular advise and annual progress report to students
- Provide insights into students professional development
- Reference letters/presentations at meetings/jobs

# Committee Responsibilities

- Show up at meetings and be involved in all advice/decisions
- Be available for any outside mentoring
- Make sure all exams and defense are fair and conducted in a professional manner
- Review thesis/dissertation very carefully and respond in a timely fashion
- Provide corrections or sources to check
- Help prepare students to succeed in exams and oral defense

# Graduate Student Responsibilities

- Read and pay attention to all policies and procedures (U/C/D level) pertaining to your graduate education
- Be efficient in the use of your time, follow all departmental deadlines for various steps towards successful graduation
- Be respectful and respectable
- Honesty and accuracy in data collecting and interpreting
- Be knowledgeable and responsible, get all training required,
- Consult statistician early in the project development stage
- Pay attention to your advisor, all laboratory practices
- Be a good departmental citizen
- Ask for help, if and when needed