Overview of Research and the Responsible Conduct of Research Training

BGS Website: http://www.med.upenn.edu/bgs

Information for Incoming Students 2014: http://www.med.upenn.edu/bgs/infofornewstudents.shtml
Training You Have To Do

• Laboratory safety: **EHRS Training – Tomorrow**
• Radiation safety: Lab Rotation-specific
• Animal Welfare: Lab Rotation-specific
• HIPPA (Health Insurance Portability and Accountability Act): Online- ASAP
• Responsible Conduct of Research: Continually
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Expectations of Students in Biomedical Graduate Studies

• Act Professionally
  o Be responsible
  o Don’t delay: Do things in a timely manner
  o Email: Reply without delay

• Be Self-Motivated
  o Read journal articles regularly, without prompting
  o Understand the science
  o Ask questions
  o Learn how the equipment and techniques work

• Be Productive
  o Be proactive, not passive: Move your science forward
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Expectations of Students in Biomedical Graduate Studies

• All incoming BGS students read and sign this document:
  – I. Student Conduct
  – II. Conditions of Fellowship Awards
  – III. Leaves of Absence
  – IV. Academic Requirements
  – V. Grievance Policy
  – VI. Other Policies

Please sign and date the *Patent and Tangible Research Property Policies and Procedures Participation Agreement* (last page of this packet) and return to the staff at orientation.

Thank you.

* Provided as a separate document in orientation folder
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Responsible Conduct of Research Training

• BGS mandates RCR training for all graduate students.

• 1st year students are taught the basics of RCR, especially focusing on BGS and University of Pennsylvania rules and regulations.
  – on-line course required of all students

• In later years, RCR topics are explored in small group discussions.
  – emphasis on complex issues that might not have a single right or wrong answer.

• In all years, RCR topics are also discussed in lab meetings.
Every member of the University community is responsible for upholding the highest standards of honesty at all times. Students, as members of the community, are also responsible for adhering to the principles and spirit of the Code of Academic Integrity.

A. Cheating
B. Plagiarism
C. Fabrication
D. Multiple Submission
E. Misrepresentation of Academic Records
G. Unfair Advantage
F. Facilitating Academic Dishonesty
Plagiarism

*Always* cite your sources!

Appropriation of another person's ideas, processes, results or works without giving appropriate credit is all considered plagiarism.

Even internet sources need to be cited.

When in doubt, err on the side of caution.
Data Manipulation

Know what is the proper and improper way to use image or data manipulation.

When in doubt, consult your lab P.I.
Data Manipulation

(Blitz and Nusbaum, 2008 J Neurosci)
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Data Manipulation

(A) Pre-POC Stim. | Post-POC Stim.
---|---
CPN2 | CPN2: 10 mV
OMN | 5 s
ion | MCN1
-ion (MCN1) | -54 mV
Ign (LG) | Prot
pdn (PD) | Ret

(Blitz and Nusbaum, 2008 J Neurosci)
Penn’s policy states that the following is forbidden:

- "Intentionally infringing upon the intellectual property rights of others in computer programs or electronic information (including plagiarism and unauthorized use or reproduction)."

Violation of this policy can lead to loss of system access, employment termination or expulsion. In addition some activities may lead to risk of legal liability, both civil and criminal.

Penn's policy on Acceptable Use of Electronic Resources can be found here:

- [http://www.upenn.edu/computing/policy/aup.html](http://www.upenn.edu/computing/policy/aup.html)

For more information on U.S Copyright law go to:

- [http://lcweb.loc.gov/copyright/](http://lcweb.loc.gov/copyright/)

Do Not Download Copyrighted Material (including movies, music, etc.) Without Appropriate Permission.
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Laboratory Notebooks

It is **essential** to keep a good lab notebook

- Write down *everything*...you will not be able to remember it all.
- Write it down as soon as you can – facts and details kept “in your head” are quickly lost.
- Use a pen or keyboard, not a pencil.
- Write it down whether it is good or bad, right or wrong. Omitting data is dishonest.
- If you decide to discard data, clearly note the reason you chose to do that.
Laboratory Notebooks

- You own your lab notebook while you are working in the lab, but the lab notebook belongs to the laboratory, not to you.

- Many PIs will allow you to keep a copy.

- Lab notebooks should not be taken out of the lab unless there is a fire...in that case, grab it!
Who Owns Data?

• Faculty, graduate students, postdoctoral fellows or staff performing research in a university do not own the data collected.
  • Employees work for hire for the university, which, in most cases, owns the rights to the data;
  • Students and postdoctoral fellows sign a participation agreement that governs Research Property.

http://www.med.upenn.edu/postdoc/documents/patent.policy.02.22.05.pdf
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• Data and data books collected by undergraduates, post-baccalaureate students, graduates, and postdoctoral fellows on a research project belong to the grantee institution.
  • Students may not take their data when they leave without making appropriate arrangements.
  • Retaining copies of data is allowed with permission and is usually good practice.
  • When faculty members leave an institution, they have to negotiate with the university to keep their grants and data.

http://www.med.upenn.edu/postdoc/documents/patent.policy.02.22.05.pdf
Respectful Workplace

BGS students are also expected to treat other individuals in their environment with respect.

Respectful Workplace Rules
(from Creating a Respectful Work Environment in a Research Laboratory, OAA/EOP)

Think and Be Sensible Before You Act: Ask yourself these questions-
• Is the joke, behavior or conversation appropriate to the relationship?
• Would my colleagues consider my behavior as unprofessional behavior?
• Could the comment/behavior be misunderstood by people who don’t know the situation?
• Do you think about the impact of your communication with others, and do you notice how other people react to what you say and do?
• Are you treating others with respect and identifying how they want to be treated?
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Think and Be Sensible/Professional When You Act: Ask yourself-
• Is the joke, behavior or conversation appropriate to the relationship?
• Would my colleagues consider my behavior to be unprofessional?
• Could the comment/behavior be misunderstood by people who don’t know the situation?
• Do you think about the impact of your communication with others, and do you notice how other people react to what you say and do?
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Course Evaluations

Course evaluations are an important aspect of teaching and learning

They are used to:

• Strengthen teaching at Penn
  – Instructors use the course evaluations to improve their teaching.
  – Each instructor receives a compilation of the responses and comments to use in evaluating their own teaching and planning future courses.

• Assess instruction
  – Colleagues, Department Chairs, Deans, and the Provost use student reviews as a part of the tenure and promotion process.
  – Teaching excellence matters in deciding whether a professor gets promoted and student evaluations are an important part of evaluating a professor’s teaching abilities.
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Course Evaluations

Course evaluations are an important aspect of teaching and learning:

• Treat as a professional evaluation process. It is part of your professional training.
• Ensure that all comments use a constructive, professional tone.
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• Treat as a professional evaluation process. It is part of your professional training.
• Ensure that all comments use a constructive, professional tone.

• Was the course content useful/interesting?
• Did you learn new material/consolidate previous knowledge?
• Was the course format effective? What worked? What could be improved?
• Did assignments and exams challenge your use of new knowledge? Did they cover relevant material?
• For individual lectures/lecturers, was the information appropriate and accessible? Did you learn effectively?
Sample of BGS Course Evaluation Form (for on-line evaluation)

Please rate the questions on a scale of P=Poor, G=Good, VG=Very Good, E=Excellent (0-4 scale)

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>F</th>
<th>G</th>
<th>VG</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall quality of course</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

2. Mike Nusbaum - Overall quality of instructor | ○ | ○ | ○ | ○ | ○
*(note: some courses will have a separate evaluation for additional lecturers in addition to the overall course evaluation)*

3. Strengths of the course

4. Weaknesses of the course

5. Additional Comments
Initial Email – send 7 days before course ends
Biomedical Graduate Studies – Penn Course Evaluations
Dear Student:

Below is the link for the online evaluation of Biomedical Graduate Studies classes. Please access (link to evaluations here) to evaluate the following course(s) in which you are enrolled for this semester:

(courses listed here)

Please remember that your answers will remain confidential and will not be reported in a way that could compromise your anonymity. Thank you for taking the time to complete these important evaluations.

Reminder Email – 14 days after initial email
Biomedical Graduate Studies – Reminder for Penn Course Evaluations
Dear Student:

Below is the link for the online evaluation of Biomedical Graduate Studies classes. Please access (link to evaluations here) to evaluate the following course(s) in which you are enrolled for this semester:

(courses listed here)

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Final Reminder – 27 days after initial email
Biomedical Graduate Studies – Final Reminder for Penn Course Evaluations
Dear Student:

Our records indicate you have not completed your course evaluations online. Please access __________________________ to evaluate the following course(s) in which you are enrolled for this semester:

(courses listed here)

This is your final reminder. You have 2 more days to complete these evaluations.

Please remember that your answers will remain confidential and will not be reported in a way that would compromise your anonymity. Thank you for taking the time to complete these important evaluations.

Please make sure that your comments are helpful and professional!
BGS Policies

- Expectations of Students in Biomedical Graduate Studies
- Conditions of Fellowship Awards
- Matters of Conduct and Academic Integrity
- Authorship Policy
- Leaves of Absence (including Parental Leave)
- Procedures for Managing Visiting Students

University Policies

- Academic Integrity
- University Policies Relevant to Graduate Education
- Graduate Rules and Regulations
- The Penn Book (Penn Resources, Policies, and Procedures)
- Procedures Regarding Misconduct in Research for Non Faculty Members of the Penn Community
- Sexual Harassment Policy
- Consensual Sexual Relations Between Faculty and Students