Classes will meet Thursdays, noon-1:30pm, locations listed below each week

Before Summer Session Starts!!!

• Complete Online Biosafety Courses
  ➢ Biosafety Training Course
  ➢ Biosafety 102: Blood-borne Pathogens for Lab & Research
  ➢ Biosafety 103: Exposure Response
  ➢ Biosafety 107: Centrifuge Safety
  ➢ Forward completion screenshots to Erin Clancy

• Contact your mentor to find out about your project
  ➢ Will you answer directly to him / her or someone else?
  ➢ Ask if there are any further biosafety courses necessary to complete
  ➢ Do any background research on your project as necessary

• Assignments for Week 1:
  ➢ Write a one page background paper on your research
     Project Overview
     Objective(s) and Hypothesis
     Methods to be used
  ➢ Discuss expectations and have Mentor / Mentee Contract signed
  ➢ Create an IDP using the AAAS Website
    http://myidp.sciencecareers.org/
Week 1: 5/30-6/3: Welcome, Orientation, and Good Lab Practices
Room: 1360 Biotech Center
- **Potential Speakers:** Chris Bradfield (Part 1); Victoria Sutton (Part 2)
- Orientation (45 minutes)
  - Introduction to MET & SROP
  - Program Expectations
  - Mentor / Mentee Expectations & Relationships
  - IDP Discussion
- Good Laboratory Practices (45 minutes)
  - Lab Notebook Maintenance
  - Data Acquisition & Recording

Week 2: 6/4-6/10 – Writing Research Proposals (Meets with MET 699)
Room: 1360 Biotech Center
- **Potential Speaker:** Nihal Ahmad, Any MET Faculty
- How to Write and Present a Scientific Proposal (60 minutes)
  - Video on NIH Tips (5 minutes)
    [https://www.youtube.com/watch?v=lAOGtr0pM6Q](https://www.youtube.com/watch?v=lAOGtr0pM6Q)
  - Different sections of a Proposal (60 minutes)
  - How to develop objectives & hypotheses (30 minutes)
- **Assignment (Both):** Design a Specific Aims page with hypothesis (print & bring to class on Week 3)

Week 3: 6/11-6/17 – Types of Research Proposals (Meets with MET 699)
Room: 1360 Biotech Center
- **Potential Speaker:** Nihal Ahmad, Any MET Faculty
- Turn in Specific Aims
- Introduction to NIH / NSF / AXA grants (45 minutes)
- Best Practices when writing a grant (45 minutes)
- **Assignment (Both):** Watch Scientific Writing Videos (30 minutes)
  [https://www.youtube.com/watch?v=0oAFVHb21HM](https://www.youtube.com/watch?v=0oAFVHb21HM)
  [https://www.youtube.com/watch?v=3QV2c6QKsMA](https://www.youtube.com/watch?v=3QV2c6QKsMA)
  [https://www.youtube.com/watch?v=zuwFDwVWp4A](https://www.youtube.com/watch?v=zuwFDwVWp4A)

Week 4: 6/18-6/24 – Scientific Writing (Meets with MET 699)
Room: 1360 Biotech Center
- **Potential Speaker:** Any MET Faculty
- Specific Aims (turned in week 3) returned
- Discussion about Reading Scientific Articles (30 minutes)
  - Literature Review versus Scientific Article
  - Strategies for reading both
- Video on Scientific Writing (30 minutes)
• Discussion about Writing Scientific Article (30 minutes)
  ➢ Video Assignment Discussion
  ➢ Class Video Discussion
  ➢ Avoiding Common Mistakes

• Assignments (SROP):
  ➢ Read Scientific Misconduct Article
  ➢ Revise Specific Aims; begin writing Significance and Methods Pages (Due to Erin by Week 6)

• Assignment (699):
  ➢ Select Discussion Topic (Due Week 5; see Appendix)
  ➢ Revise Specific Aims; begin writing Significance, Innovations, and Methods Pages (Due to Erin by Week 6)

• Assignment (Both): Videos on Publishing Research (30 minutes)
  https://www.youtube.com/watch?v=E13mWgsp_og
  https://www.youtube.com/watch?v=QGii-OZVP4A
  https://www.youtube.com/watch?v=HdqfXVJKH6o

Week 5: 6/25-7/1 – Presenting Scientific Data (Meets with MET 699)
Room: 1360 Biotech Center
• Potential Speaker: Chris Bradfield
• McConnell Video (45 minutes)
  https://www.youtube.com/watch?v=Hp7Id3Yb9XQ
• Follow-up Discussion (45 minutes)
  ➢ Developing a Scientific Poster
  ➢ Creating a Powerpoint Presentation
  ➢ Further commentary

• Assignments (Both):
  ➢ Video on How to be a Successful Scientist (15 minutes)
    https://www.youtube.com/watch?v=7F1ee3IFBWo
  ➢ Poster Development for five minute talk
    ▪ SROP: Poster based on Summer Research (Due Week 9)
    ▪ 699: Poster based on Selected Topic (Due Week 9)

Week 6: 7/2-7/8 – Collaboration and Misconduct (MET 699 Optional)
Room: 1360 Biotech Center
• Potential Speaker: Any MET Faculty, Jo Handelsman, Patti Keely
• Turn in papers electronically to Erin
• Collaboration (30 minutes)
  ➢ What is it?
  ➢ How to use it effectively, now and in the future
• Misconduct (60 minutes)
  ➢ What is it?
  ➢ Who to go to when see it?
  ➢ Consequences of
  ➢ Article Discussion
Week 7: 7/9-7/15 – Preparing for Graduate School  
Room: 113 Taylor Hall  
- **Potential Speaker:** Rob Lipinski, Any MET Faculty  
  - Discussion about Grad School (30 minutes)  
    - Process of applying  
    - *Actually* being there  
  - Asking for Letters of Reference (15 minutes)  
  - Drafting Personal Statements (45 minutes)  
  - **Assignment (SROP):** Write a Personal Statement (due in Week 8)  
  - **Assignment (Both):** Read two documents e-mailed to you and make notes  
    - “Primary” paper be prepared to talk about in-depth  
    - “Secondary” paper be prepared to make comment on  
- **NOTE:** Graduate School Fair is on July 10th, you are expected to attend

Week 8: 7/16-7/22 – Peer Review (Meets with MET 699)  
Room: 103 Taylor Hall  
- **Potential Speaker:** Christopher Bradfield  
  - Introduction to Mock Study Section (15 minutes)  
  - Mock Study Section (60 minutes)  
    - Primary will present thoughts  
    - Secondary will include opinions  
    - Group will decide funding or not  
  - Discussion on Providing Constructive Feedback (15 minutes)

Room: 103 Taylor Hall  
- **Potential Proctor:** MET Faculty  
  - All students will present their (e-)posters (5min each)  
  - All will be questioned and given *constructive* feedback

Week 10: 7/30-8/5 – Final Presentations (Meets with MET 699)  
Room: 1360 Biotech Center  
- **Potential Proctor:** MET Faculty  
  - All students will present their (e-)posters (5min each)  
  - All will be questioned and given *constructive* feedback
Supplementary Information For Classes

Topics for Presentations (Week 4, 699)
An NSF example grant
An NIH example grant
Referencing Software: Endnote
Software, Web of Science
Writing an F Award
What is the Prelim Exam Process
PubMed
How to present ideas on a poster
Library resources I didn't know about
Other funding sources (AHA, et cetera)
Collaborative writing: dropbox/box/google docs/et al.

Tips on Grantwriting (Week 3)
http://grants.nih.gov/grants/writing_application.htm
http://nsf.gov/funding/preparing/