Welcome to Physics 499

Instructors:
Brian DeMarco: 329 LLP, bdemarco@illinois.edu
Celia Elliott: 215 LLP, 244-7725

Website: http://courses.physics.illinois.edu/phys499/

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1. Communicate!

- The most successful scientists are excellent communicators.
- Communicating forces you to organize your thoughts.
- Effective communication is challenging.
- Communication skills are valued and critical in all sectors: academic, industry, ...

We will emphasize communications in this class!
2. Professional Development

• Communication
  • Writing, Figures, Speaking, Posters

• Narrative for your research

• Information Related to Graduate School

• Discussion of how research is funded
  • The sell!
What is required of you?

• Senior Thesis
  • Produced one section at a time, due Mon. Dec. 14 (before 5pm)
• Research Poster
  • A method of presentation at conferences & workshops, due Mon Oct. 5 (before 8am)
• Student Presentations
  • Two 1-min “elevator speeches” describing your research, pitched for different audiences
  • Formal APS-style conference talk, Fri Dec. 4
    • PowerPoint presentation, 10-min APS-style talk
    • This talk will be your dress rehearsal for the Undergraduate Research Symposium Friday January 29, 2016
• Writing Workshops
• Colloquium Reports

For your review, PHYS 496 lectures are archived at http://courses.physics.illinois.edu/phys496/sp2015/
Some details:

- Research Poster and accompanying “speech”
  - Poster Session: Monday Oct. 12, 5:00pm
  - Audience:
    - Faculty Reviewers → Prize for best poster!
    - Physics 110 Students → You are the example!

- APS-Style Presentation
  - Physics Undergraduate Research Symposium: Jan. 29, 2016
  - Topic – your research
  - 8 min + 2 min for questions
And a few more details:

• **Senior Thesis**
  • We will guide you through – but it is a lot of work
    • You will *usually* be able to revise (see grading rubric) for added points
  • Written in much the same way as you would write an article for publication - beginning with an outline
DEADLINES:

• Goal is to help you plan your writing to meet deadlines
• Most assignments due on Friday (< 9pm), you can ask last-minute questions during class on Fridays
• Points will be deducted for assignments submitted after the posted deadline
• Some assignments are eligible for re-grading and assignment of additional points, if the original assignment was submitted by the deadline
• Revision deadline is posted on the instructions
DEADLINES – A Few Changes
(relative to previous years)

• Colloquium Reports due no later than 15 days after the talk
  – See template questions.
  – We expect well-written narrative reports (following all the rules). Use an appropriate number of paragraphs.
  – No additional reports (beyond the four required) will be accepted for extra credit.

• Note that homework rewrites each have deadlines
This course *is* a challenge...

- Don’t get behind on your assignments
- Take charge of your research literacy
- Explore new areas of physics—don’t assume that you already know which research area you want to pursue
- Embrace all opportunities to polish your skills
- Help one another

... but you’ll learn very useful things that you won’t learn anywhere else