Physics 496
“Introduction to Physics Research”

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Alternate Titles:
“Effective Communication in Science”
“Rhet 3.141592654”
“A hodgepodge of what physicists/scientists should know”
“Things I wished my advisor had told me”
“How the science world works”
Our goals for you in PHYS496

Help you learn to think critically
   About others work and yours!

Help you learn methods to write and speak persuasively
   The scientific community (and just about everyone else!) tends to be skeptical, so you can’t rely just on great results!

Help you learn to navigate the scientific literature
   Researching existing literature is critical for planning future work, writing proposals, writing papers, etc.

Teach you how the “world of science” works

We want to teach you how to become effective scientists and communicators!
Useful if you want to go to graduate school, academia

Useful for graduate school, industry

Useful for undergraduate degree, industry

Useful for undergraduate degree, anything!
Components of the Course

Writing, Speaking, & Presentation Skills
- Writing Workshops, Journal Club, Colloquium Reports, Figures, Communicating with non-scientists,…

Resources for Scientists
- How to use on-line databases useful for research

Scientific Ethics
- Case studies

Exposure to Physics Research & Careers
- Speakers, Colloquia, Journal Club
Our expectations of you

**In-class participation:** mandatory attendance

**Written assignments**
- Don’t start too late!
- We’d prefer a Word file via email, but an emailed pdf file is OK

**Peerceptive**
- Feedback on your classmate’s writing

**Oral presentations**
- Professional and polished
- Plan to use PowerPoint (sent to me via email) on my laptop
Changes

Physics 496 every semester, no more Physics 499

670 majors!!!

Thesis will exist as independent study with research advisor

Talk with us if you need help finding a research advisor

Activities relating to getting into graduate school held independently
Comments

You will get out as much as you put in

Talk with us if you have questions regarding homework, plagiarism, life/career issues, ...

This course is an opportunity to ask us questions about whatever you’d like to know regarding Physics, careers, communication, publishing, funding, ...