

Introduction to PHY1600S Basic Essentials for the Course

Pekka Sinervo Department of Physics

10 January 2017





Things you need to know about this course

• Times:

- Tuesdays, 1:10 PM sharp to 3 PM
- 1 week that will have to be "special"
 - Week of January 24
- Find another time later that week
 (Doodle poll after I get your emails!)

Typical Class:

- Short oral presentations (by you!)
- My commentary on assignments
- More oral presentations

Assignments:

- Written will be short (<600 words)
- Short Oral Ones
 - Hot Topic
 - Joke
 - Extemporaneous
- Longer Oral Ones
 - 10 minutes or less



This course has several learning outcomes, all intended to make you more effective communicators

- Understanding how science is done
- Increase your professionalism in oral presentations and teaching
 - Well-established but not particularly well-known practices and guidelines
 - Knowing your audience
 - Practice!



- Structure
- Grammar and composition
- Practice!



Practice and feedback will be key strategies



The pass-fail assessment will be based on in-class participation and completion of assignments

- For a pass grade:
 - Full attendance at a minimum of 9 of our 12 meetings
 - At least 7 of the 10 written assignments
 - Agreed that no more than 4 assignments+meetings can be missed
 - Complete the weekly in-class oral presentations
 - One formal oral presentation

- Oral Assignments
 - 2-5 minutes each, 2 of each every week

Hot Topic Joke

Extemp

- Sign-up in next few days
- I'll provide some examples



You will work with a "reading buddy" on all of your weekly written assignments January 17-23, 2016 17 18 19 20 21 22 23

Process and deadlines:

```
1<sup>st</sup> deadline — following Thursday, midnight (or earlier)

→get draft to reading partner

2<sup>nd</sup> deadline — following day (Friday), midnight,

→return comments to reading partner

3<sup>rd</sup> deadline — following Sunday, 9 PM,

→submit to me by email

4<sup>th</sup> deadline — following Tuesday, 11 AM,

→my comments and review them together!
```



Here are some of the bare minimums of the written assignments

Title & Author Aesthetics are important

A Reader Direct to a specific audience

Reading Buddy Choose a different one each week

Sources Reference as appropriate

600 words is about 2 pages of text

- I find it challenging to write something that short!
- Reading buddies should review, point out weaknesses, and suggest corrections



A quick peak at the assignments will illustrate how they will support the goals of the course

- 1. Grammar and punctuation review
- 2. Critique of article on lecturing; assessment of a lecturer
- 3. Formal letter to associate chair
- 4. Ten minute research presentations
- 5. Newspaper article on science
- 6. Critique of book or paper
- 7. Technical Proposal
- 8. Controversy
- 9. Job Application
- 10. Vision Statement



Some of the Possible Hot Topics

- Canada's role in combating global warning is it sensible, is it enough?
- The moral responsibility of the scientists of the Manhattan Project who successfully produced the first atomic bomb.
- Edward Teller hero or villain?
- Is the Canadian government "good" to scientists?
- Society funds the sciences more than the humanities; is that appropriate?
- The ethics of cloning OR Stem Cell research.
- Nuclear Power a necessary evil?
- Evolution vs. Intelligent Design.
- Increasingly, research grants in the physical sciences are being guided towards applied rather than 'curiosity' research. Does this best serve society's interests?
- Genetically modified foods a blessing or a curse?
- Is global warming anthropogenic?
- Is wind power a useful contributor to the reduction of greenhouse gases?
- Subways vs. light-rail transit in Toronto?

