

"It is far better to grasp the universe as it really is  
than to persist in delusion, however satisfying and  
reassuring."  
--Carl Sagan

# Introduction

Supplementary Material for CFB3333/PHY3333  
Professors John Cotton and Stephen Sekula  
January 18, 2012

Based on the following information on the web:

<http://www.physics.smu.edu/pseudo/Intro/>

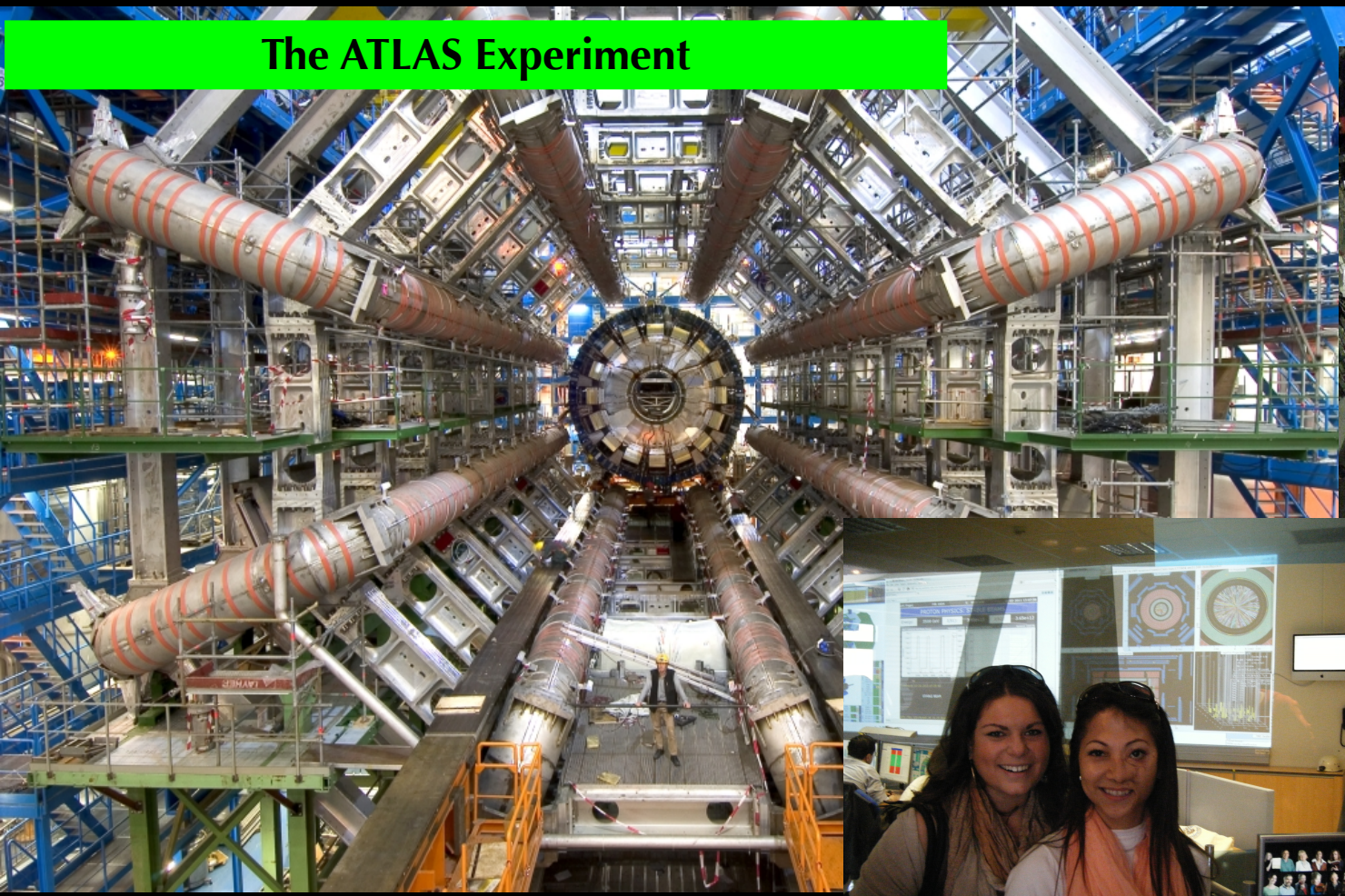
# The Big First Day To Do List

- **Lecturers' background information**
- Explanation of code names
- Survey of beliefs
- Why do I need this course?
- Course information and requirements
- Plagiarism warning
- Astrology information
- Explanation of code numbers
- Attendance Quiz #1

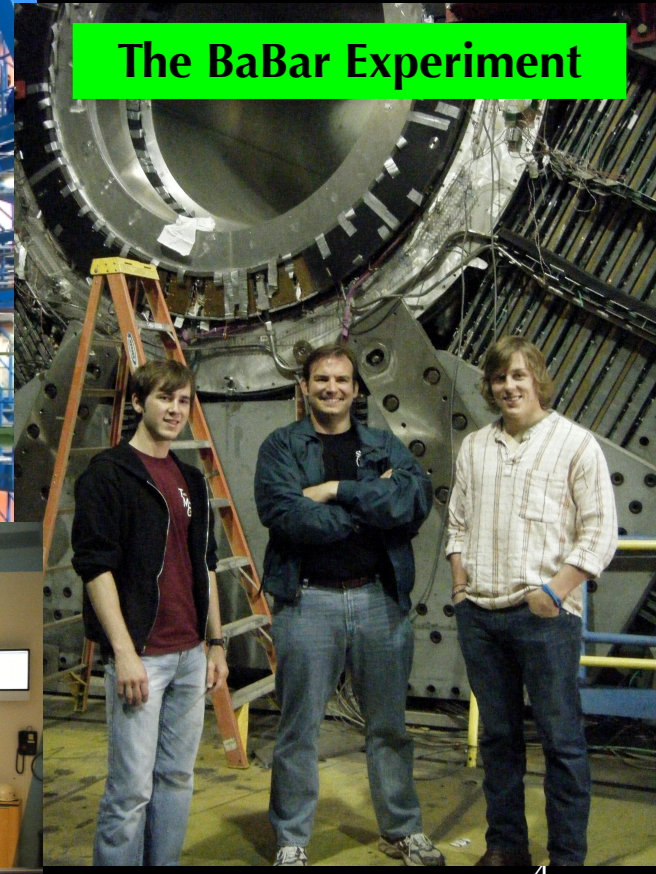




## The ATLAS Experiment



## The BaBar Experiment





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# Why do I need this course?

- 28% of Americans surveyed believe in astrology; 18% aren't sure
- 60% believe in ESP
- 30% believe in visits by extraterrestrials
- 25-50% believe in ghosts, faith healing, communication with the dead, and lucky numbers

# Pseudoscience Kills

- Peter Duesberg, Professor of Molecular and Cell Biology at UC Berkeley, denies that HIV causes AIDS. Christine Maggiore, founder of Alive & Well AIDS Alternatives, and HIV+ follower of Duesberg did not take antiretroviral drugs and breast fed her two children. Her daughter, Eliza Jane (age 3), died of AIDS-related pneumonia in May 2005. Maggiore died of AIDS-related complications in 2008.





# Pseudoscience Kills

- Chiropractic manipulation of the neck caused fatal strokes in 45-year-old Lana Dale Lewis in 1996, and 21-year-old Laurie Jean Mathiason in 1998.
  - Reference: Skeptical Inquirer Vol. 28, No. 3, May/June 2004.
  - <http://quackfiles.blogspot.com/2006/12/must-see-dangers-of-chiropractic.html>
- 10-year-old Candace Newmaker died while being smothered with pillows and a flannel sheet during "attachment therapy" in 2001.
  - Reference: <http://healthwatcher.net/Quackerywatch/Attachment-therapy/>
- 5-yr old Abubakar Tariq Nadama died while receiving chelation therapy August 2005. He was autistic. He was being treated for heavy metal (lead, mercury, etc.) poisoning. Lead and mercury DO NOT CAUSE AUTISM.
  - Reference: <http://www.post-gazette.com/pg/05237/559756.stm>

# More Examples on the Web

<http://www.physics.smu.edu/pseudo/Intro/>

# More To Do...!

- Course information and requirements
- Plagiarism warning
- Astrology information collected for an individualized horoscope reading
- Explanation of code numbers
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# Goals, Objectives, Learning Outcomes

## **General Cultural Formations Learning Outcomes**

Students will demonstrate the ability to use inter/multi-disciplinary approaches for understanding complex issues.

## **Specific CFB3333/PHY3333 Learning Outcomes**

Students will be able to detect pseudoscience in its many guises: paranormal phenomena, free-energy devices, alternative medicine, intelligent design creationism, and many others.

Students will learn to think critically and to question outlandish claims, hype, and outright BS.

Students' writing will improve.

Students will be able to distinguish credible sources of information from nonsense; students will become intelligent consumers of information.



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# Grades

**CFB 3333**

<b>Attendance / Participation</b>	<b>5%</b>	
<b>Homework / Abstracts</b>	<b>10%</b>	(drop lowest one)
<b>Reading quizzes</b>	<b>10%</b>	(drop lowest one)
<b>Book report #1</b>	<b>10%</b>	
<b>Book report #2</b>	<b>10%</b>	
<b>7-page paper</b>	<b>15%</b>	
(average first and second attempts of midterm paper)		
<b>15-page paper</b>	<b>20%</b>	
<b>Final examination</b>	<b>20%</b>	

# Attendance Policy

- Attendance is part of your final grade
  - checked via attendance quizzes, etc.
- You are allowed 6 UNEXCUSED ABSENCES
  - As of the 7<sup>th</sup>, you automatically fail the course
  - No pleading, no whining, no “buts”
  - Excused absences don't count as part of your 6
    - see <http://www.physics.smu.edu/pseudo/attendance.html>  
and <http://www.physics.smu.edu/pseudo/disability.html>

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# Be a Smart Consumer: How does CFB3333 Stack Up?

- See how the CFB3333 workload compares to other Cultural Formations classes. Dean Dennis Cordell in the General Education Office says that the minimum CF load is:
  - 150 pages per week reading (over 2000 per semester),
  - 20 pages writing + rewrites per semester
- CFB3324 An Archeology of Values - Foster, Gattens
  - Two 5-page analysis papers, midterm, final, attendance, grooming.
  - 10 required books.
- CFA3336 Gender and Globalization - Lockwood
  - Two 7-8-page papers, midterm, final, attendance.
  - 4 books.
- CFA3399 In Search of Ice Age Americans - Meltzer
  - 15-20-page (minimum) research paper, midterm, final, attendance, tardiness.
  - 2 books, 26 journal articles.
- Notice that all of these classes include a midterm exam which we have chosen not to give.