

**PHY1600S**  
**Effective Communication**  
**for Physicists**

Prof. Tony Key

**I. INTRODUCTIONS**

General - Names

**II. ABOUT THE COURSE**

Course Design,  
 Grading, Assignments, Texts, etc.

**III. A QUESTIONNAIRE**

**IV ASSIGNMENT ESSENTIALS**

PHY1600S

**II. ABOUT THE COURSE**

**TIMES**

Tuesdays, here 11:10 SHARP to 1 pm

**A TYPICAL CLASS**

Short Oral Presentations by you  
 My Comments on Assignments  
 Class Exercise  
 More Oral Presentations (you or me)

**ASSIGNMENTS**

Written – short, 600 word essays  
 Short Oral – Hot Topic, Joke, Extemp  
 Oral – 10 minute presentations

II. ABOUT THE COURSE

PHY1600S

**GRADING**

For a Pass grade –

**Attendance**

Full attendance at a minimum of 10 of our 11 sessions

**Weekly in-class Oral Presentations**

Hot Topic : Joke : Extemp

**Assignments**

Submission of at least 8 of 10 assignments  
 ?One formal oral presentation?

II. ABOUT THE COURSE

PHY1600S

**Oral Assignments**

Weekly – 2-5 minutes each

**Hot topic**  
**Joke**  
**Extemp**

II. ABOUT THE COURSE

PHY1600S

**Oral Assignment**

? 10 minutes - Once per course ?

**Formal In-Class Presentation**

II. ABOUT THE COURSE

PHY1600S

**Written Assignments**

(email to me in Word, - e.g. joe1.doc, joe2.doc ...)

**Deadlines for Written Assignments**

1<sup>st</sup> deadline – following Thursday, midnight (draft to Reading Partner)

2<sup>nd</sup> deadline – following Friday, midnight (return Reading Partner's draft)

3<sup>rd</sup> deadline – following Sunday, 9 pm (final draft to me)

(Prompt, detailed comments, suggestions)

4<sup>th</sup> deadline – following Tuesday, 11 am

(No guarantee of comments, etc.)

Missed 4<sup>th</sup> deadline, no credit!

## II. ABOUT THE COURSE

PHY1600S

## GENERAL

email list will be set up for communication

Choose a Reading Partner for each written assignment

Assignments will be posted on the Web site  
... as will many useful links, including  
... model assignment from former students

## Texts

PHY1600S

See List provided on  
<http://www.physics.utoronto.ca/~key/PHY1600/2012>

**Teaching (General):**

►\*\*\*Wilbert McKeachie, *Teaching Tips*, 9th Ed., (Heath and Co., 1994)

**Physics Teaching:**

►Arnold B. Arons, *A Guide to Introductory Physics Teaching* (Wiley, New York, 1990).

L.C. McDermott and the Physics Education Group *Physics by Inquiry*, (Wiley, New York 1996)

**Oral Communication**

Peter Kenny, *A Handbook of Public Speaking for Scientists and Engineers* (Institute of Physics, 1998)

## Texts

PHY1600S

**Writing:**

►\*\*\*W. Strunk Jr., and E.B. White, *The Elements of Style* 3rd Ed., (Macmillan Co, New York 1979).

\*\*\*Michael Alley, *The Craft of Scientific Writing* (Springer 1996) ISBN0387947663

Scott L. Montgomery, *The Chicago Guide to Communicating Science* (University of Chicago Press, 2003).

**General Communication**

Arthur H. Bell, *Tools for Technical and Professional Communication* (NTC Publishing Group, 1995)

Ronald B. Adler and Jeanne Marquardt Elmhorst, *Communicating at Work - Principles and Practices for Business and the Professions* (McGraw-Hill, 5th edition, 1996)

## Texts

PHY1600S

**Web sites:**

<http://www.writing.utoronto.ca/>

<http://www.writing.engr.psu.edu/>

PHY1600S

## WRITTEN ASSIGNMENTS

– the bare minimum

PHY1600S

**ESSENTIALS**

Title and Author    Aesthetics Important

A Reader    Direct to a  
Specific Audience

Reading Partner    Choose a different one  
each week

Sources    Quote as appropriate

**ESSENTIALS**  
**contd..**

PHY1600S

An Introductory Paragraph      **Vital!**

Body of Text      Exposition of Facts, Arguments

Concluding Paragraph      Summarizes, Provides closure

WRITTEN ASSIGNMENTS – the bare minimum	
Title and Author (you!)	Aesthetics important
Reading Partner, Sources	Acknowledge
A reader	Direct to a specific audience
Introductory paragraph.	Vital!
Body	Facts, Arguments, Exposition
Concluding paragraph.	Summarizes the material, provides closure.

PHY1600S

**ESSENTIALS**  
**(written and oral)**

PHY1600S

**SET**      tell 'em what you're gonna tell 'em

**BODY**      tell 'em

**CLOSURE**      tell 'em what you've told 'em

**GUIDELINES**

PHY1600S

**Be Brief! (<600 words)**

**Use lots of white space**

**Avoid Redundancy and Verbosity**

**Use a Spell Checker**

**Proof Read - again and again**

**Use your Reading Partner**

**Read Out Loud**

**ORAL ASSIGNMENTS**

PHY1600S

Good behaviours for giving presentations can be learned!

**CLASSROOM BEHAVIOURS OF LECTURERS**

Harry G. Murray,  
University of Western Ontario.

Each Professor was observed by 5-7 Observers during 3 one-hour classes (total 15-20 hours)

In Student Evaluations over several years, 16 rated HIGH, 16 rated MEDIUM, 16 rated LOW

Of 113 Teaching Behaviours,  
53 showed significant statistical  
correlation with Student Evaluations

### Top 5 Negatively Correlated

**Nervous**  
**Sad**  
**Dwells on obvious points**  
**Rocks or sways on heels**  
**Fails to take initiative in classroom**

Of 113 Teaching Behaviours,  
53 showed significant statistical  
correlation with Student Evaluations

### Top 5 Positively Correlated

**Enthusiastic**  
**Shows strong interest in subject matter**  
**Speaks expressively**  
**Moves back and forth in front of class**  
**Tells Jokes or Anecdotes**

#### THE TEACHING DOSSIER

##### Title Page and Contents.

<b>Teaching Philosophy.</b>	A statement about the beliefs that inform your teaching.
<b>Areas of Expertize.</b>	List the areas and levels at which you are qualified to teach.
<b>Experience.</b>	Details of the teaching you have done.
<b>Teaching Materials.</b>	List and summary of materials you may have developed to support your teaching - lecture notes, homework assignments, Web pages, etc.
<b>Evaluations.</b>	Summary of any evaluations you have received about your teaching from students and coordinators of any courses you have taught. Letters are particularly useful.
<b>Awards.</b>	Any teaching awards you have received should be listed here, with details.
<b>General.</b>	Any innovations you have introduced, influences on other teachers, courses, workshops or conferences on teaching that you have attended – including this course.

THE TEACHING DOSSIER	
<b>Title Page &amp; Contents.</b>	
<b>Teaching Philosophy.</b>	A statement about the beliefs that inform your teaching.
<b>Areas of Expertise.</b>	List the areas and levels at which you are qualified to teach.
<b>Experience.</b>	Details of the teaching you have done.
<b>Teaching Materials.</b>	List and summary of materials you may have developed to support your teaching - lecture notes, homework assignments, Web pages, etc.
<b>Evaluations.</b>	Summary of any evaluations you have received about your teaching from students and coordinators of any courses you have taught. Letters are particularly useful.
<b>Awards.</b>	Any teaching awards you have received should be listed here, with details.
<b>General.</b>	Any innovations you have introduced, influences on other teachers, courses, workshops or conferences on teaching that you have attended - including attendance at this course