

Syllabus PHYS 2997 Teaching of Physics Fall 2017

Course Information

CRN	23830
Location	102 Thaw Hall
Time	Friday 3:00 – 4:50 pm
Instructor	Russell J. Clark, Ph.D
email	ruc2@pitt.edu
Phone	412-624-9204
Office	OEH 404
Office hours	Monday: 7:00am – 8:00am Tuesday: 2:00pm – 3:00pm Wednesday: 3:00pm – 4:00pm Thursday: 3:00pm – 4:00pm Friday: 7:00am – 8:00am Other times by appointment: http://tinyurl.com/Russell-Clark-Appointments

Course Description

This is a mandatory course for all physics graduate students. The overall objective of this course is to prepare incoming graduate students for their duties as Teaching Assistants (TAs) and lay the foundation for any subsequent teaching role they may assume. This course will introduce students to the principles of learning and physics education research-based curricular and pedagogical approaches using concrete examples. There will be opportunity to reflect upon various aspects of the course and teaching and learning in general.

The grade for the course is either credit or no credit (pass/fail). The following are requirements for the course.

- ✓ You must fully complete all the assignments and activities by the assigned dates.
- ✓ You must participate in all class discussions and activities.

Internet Access

Internet access for this course is provided through the Courseweb system. This is a portal used for many different courses at the University of Pittsburgh and is basically a communications tool between the instructor and the students. Through Courseweb you may send email to your instructor or the UTA, view your grades and download course materials such as the syllabus. You will also find announcements, upcoming activities and class assignments. Use the following link to access Courseweb: <http://courseweb.pitt.edu>. Once there, login using your Pitt email username and password. If you do not know your username and password, contact the computer help desk (412-624-4357 or 4-HELP). After you login you will see links for all of your courses that participate in Courseweb. Simply click on the link for this course.

Schedule

Lecture	Date	Topic or Activity	Description	Homework
1	09-01	Introduction	Student introductions Overview of the course Standard Inventory Exam (STPFASL) CSEM Exercise	Pre-Teaching Survey
2	09-08	Basics of Teaching	Syllabus, Pronunciation & Enunciation, Preparation, Good presentation, Working problems, Answering questions, Listening, Attitude	Problem Sorting Exercise
3	09-15	Grading and Problem Selection	What is the purpose of grading, What is a rubric, Developing a rubric Write a quantitative problem	
4	09-22	Writing Questions and Problems	Discuss quantitative problem Re-write as a conceptual problem Re-write as a context rich problem	
5	09-29	Presentation 1	Worked example	
6	10-06	Presentation 1	Worked example	
7	10-13	Presentation 1	Worked example	
8	10-20	Presentation 2	Teach a topic	
9	10-27	Presentation 2	Teach a topic	
10	11-03	Presentation 2	Teach a topic	
11	11-10	Presentation 3	New Pedagogies	
12	11-17	Presentation 3	New Pedagogies	
	11-24	Thanksgiving Break	No class	
13	12-01	Presentation 3	New Pedagogies	Post-Teaching Survey
14	12-08	Summary	A discussion on what you can do to improve your performance as a teacher.	
	12-15	Final Exam Week	No class	

Grading

The course grade for this class is S/NC, which means pass (S) or fail (NC). You will not receive a letter grade for this class.

You will be given points (see the table below) for participation in and completion of the class assignments.

You will only receive a grade of S (pass) if your final score is 185 or above.

Note that you will only be allowed to makeup missed work if you have an excused absence. If you have to miss class due to illness or a family emergency then you may be asked for documentation, such as a note from your doctor. If you know that you will have to miss class due to attending a conference or some other compelling reason, then you should discuss this with the instructor ahead of time.

Assignment	Description	Points
Attendance	You will receive 8 points for class participation in each class meeting. If you show up for class, but do not participate then you may receive fewer than 8 points.	112
In Class Assignments	Throughout the semester you will be given short assignments to complete in class. The number of points per assignment will vary but collectively they will be worth 14 points.	14
Homework	Throughout the semester you will be given assignments to complete outside of class. The number of points per assignment will vary but collectively they will be worth 14 points.	14
Presentation 1 (15 minutes)	You will work out an assigned example problem from introductory physics. Your peers will provide feedback on your presentation.	15
Presentation 2 (15 minutes)	You will teach an assigned topic from introductory physics. Your peers will provide feedback on your presentation.	15
Presentation 3 (30 minutes)	You and a partner will demonstrate a new pedagogy with your peers as your “students”.	15
Essay (1 or 2 pages)	Write an essay on what you need to improve in your teaching and how you plan to make that improvement.	15
		200

Disability Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services (DRS), 140 William Pitt Union, 412-648-7890, drsrecep@pitt.edu, 412-228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

Academic Integrity

Take time to read the information on “Academic Integrity” and be sure that you understand your responsibilities under the guidelines set out for The Dietrich School of Arts and Sciences, which are spelled out in full at <http://www.as.pitt.edu/fac/policies/academic-integrity>.

Statement on Classroom Recording

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student’s own private use.

Useful Information

The following links and locations may be useful to you.

Resource	Location	Link
Campus Building Index		http://www.tour.pitt.edu/locations
Academic Resource Center	G-1 GSCC	http://www.asundergrad.pitt.edu/arc
Writing Center	317B O’Hara Student Center	http://www.writingcenter.pitt.edu/
Math Assistance Center	215 O’Hara Student Center	http://www.mathematics.pitt.edu/about/math-assistance-center
School of Arts and Sciences	Thackeray Hall	http://www.asundergrad.pitt.edu/
Advising Center	201 Thackeray Hall	http://www.asundergrad.pitt.edu/advising-center
Office of Student Records	140 Thackeray Hall	http://www.asundergrad.pitt.edu/offices/student-records.html
Registrar	G-3 Thackeray Hall	http://www.registrar.pitt.edu/
Office of Career Development and Placement Assistance	200 WPU	http://www.studentaffairs.pitt.edu/cdpa
Study Abroad Office	802 WPU	http://www.abroad.pitt.edu
Counseling Center	Suite 334 WPU	http://www.studentaffairs.pitt.edu/cchome
Campus Computing Labs		http://technology.pitt.edu/about-us/lab-locations-hours-and-equipment