ST Friday 10th September 2004

Note Title 09/09/2004

Outline for today (Part I)

(first hour)

- Housekeeping information (prerequisites, class coordinates, ...)
- Instructor information
- Text resources
- Motivation of course material
- Requirements (e.g. homework, final exam)
- Assessment (% of components towards final grade, ...)
- Academic Integrity
- A respectful environment

and, last but not least,

answering your questions!

e.g. how will you know if this course is right for you?

e.g. what have you heard about this course?; dispelling myths about it – or me...

Housekeeping

Lectures will be held regularly here in Fields Institute Friday mornings from 10am–noon.

I will hold a weekly office hour
This is tentatively scheduled on
Fridays 2:30–3:30pm
It straddles an hour-boundary to allow students taking a course/seminar either 2–3 or 3–4 to attend.
(same day as lecture, for out-of-downtown commuters.)
* action: if this does not work for you, raise the issue in the question period.

No tutorials, labs, (or field trips. 😊).

Prerequisites – there are no formal prerequisites.
But since this is
PHY2406F = a graduate (MSc) course in Physics,
it is an advanced course. As such, it is unlikely to be accessible to an average 4th year undergrad. Exceptional students are welcomed; it's best to discuss with the prof. if you are in doubt. Mathematicians too.

I will assume that you understand well
- Lagrangian mechanics (E-L eqns, $\mathcal{H}$, etc.)
- Quantum mechanics (angular momentum, $\hat{H}$ spectrum, SHO, ...)
- Electromagnetism (Maxwell's eqns, Gauss' law, plane waves, etc.)

Recommended Co-"requisite": QFT I (and GR I)

Instructor information

Name: Amanda W. Peet
↑(not the Hollywood actress)

Title: Prof. & Dr.
Call me "Prof. Peet"

Office: MP 1118 (11th floor, MP building, Burton Tower)

E-mail: I communicate much better in-person or over the phone. The course grader will handle the phy2406f@physics.utoronto.ca account, referring cases to me verbally only when necessary. Total capacity for reading/responding for whole class is about <½ hour per week, max.

Phone: (416) 978-3911 . Has voicemail. Use it!

Web Hub: www.physics.utoronto.ca/~phy2406f/

Contains THE most up-to-date info on the course. Check it at least twice a week. Pre-class reading and homework will be posted (only) here.

Policy on individual communication: Yes. ☺ Please use my office hour primarily, phone secondarily.

Your grader is an incredibly talented graduate student who is doing forefront research involving string theory. (He won't be holding office hours because he gets paid only for grading - and helping me a bit with e-mail and the course website.) See me for grading concerns.

--- and me? ↓

(Instructor information, cont'd ---)

Snipped from my website
www.physics.utoronto.ca/~peet/home/ :-

Brief CV

- *Alfred P. Sloan Research Fellowship*, 2002
- *Radcliffe Fellowship*, 2002
- *PREA*, 2001
- *CIAR Scholar*, Cosmology and Gravity Programme (2000-5)
- *Assistant Professor*, University of Toronto, Canada (2000-)
- *Postdoctoral Fellow*, Institute for Theoretical Physics (ITP), UCSB, US (1997-2000)
- *Postdoctoral Research Associate*, Princeton University, US (1994-1997)
- *Ph.D.*, Stanford University, US (1994)
- *B.Sc.(Hons)*, University of Canterbury, New Zealand (1990)

That's me professionally, in brief.

Some other aspects of me as a person:

Enthusiastic about education and fairness/equity

Casual dresser

Welcoming ♀ ♂ and straight.

I love mountains, hiking and skiing (downhill!).

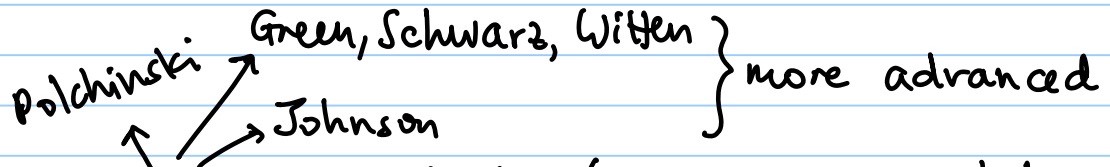
I like short hair & see long faces with long hair!

Text resources

Barton Zwiebach's brand-new 2004 textbook
"A First Course in String Theory".

Prof. Zwiebach has received major MIT teaching awards - including student-voted popularity awards - for developing the course material that became this book. He is a very highly regarded string theorist, very talented calculationally as well as being a great teacher. A very generous person.

* Copies on sale in MoFT Bookstore.
Buy yours now - it is a REQUIRED text and will be useful to auditors too.



Other resources available (on reserve in Library).

(No other course costs, or equipment, or outside activities.)

Note: I will not be lending out any personal copies of any required or reserved texts at any time. Sorry!

Before each class, I expect you to read certain pages of the Zwiebach text, to make lectures easier for you to understand. This will really start to matter after the first week or so.

Assessment

Two big components

→ ① Substantive homework assignments (written)

HW1, HW2, HW3
due: 15oct, 05nov, 26nov

Each worth the same.
Individual work.
(not group work.)

See web page for lateness policy.

→ ② Final exam (exams are during 09-20 Dec)

* Your choice: (a) open-book written exam: 3 hours
(b) closed-book oral exam: ½ hour
= individual session examined by the prof, one-on-one.

+③ Class participation

Grade algorithm:

G = final mark
H = (HW1 + HW2 + HW3)/3
E = exam

Written Exam

For (b), $G = 0.4E + 0.6H$;
For (a), $G = 0.6\max(E,H) + 0.4\min(E,H)$.

▷ Estimation of workload:
Expect average should be about ~3 x{class hours}
+ group discussions
- reading assigned pages of text
- consolidating lecture notes w online notes & text
- homework!
- deep learning (rather than superficial)

Academic integrity

"Plagiarism and cheating will not be tolerated."

What does this mean?!

= © awp

(1) Coming to lectures. Downloading the lecture notes from the comfort of your dorm room is a form of stealing. The notes are provided for dyslexic students and others with disabilities making note taking difficult. They are also there so that you can listen to my explanations fully - take your own notes to add to my notes. This is a service I gift you. ☺

(2) Doing homework assignments by yourself. Copying off some "smart friend" cheats the other students in the class, and it cheats you and your friend. Identical-looking assignments will be referred to me by the grader. You may discuss general physics principles behind the questions with other students - and I encourage you to participate in study groups.

(3) Participating in class. Sitting there like a vege while other students think hard and bother to answer questions is parasitic, intellectually. Contribute.

(4) Providing proper evidence of claimed reasons for absences. E.g. medical certificate from student health centre if you get the flu a few days before HW#2 is due. Necessary only for grading instruments. I expect you can be trusted to come to class regularly so will not police you by taking roll call.

A respectful environment

We are all responsible adults. Please be maximally considerate to other students in the class (and me). We all want to optimise the learning experience.

- Please arrive on-time; and please don't leave early (unless you notified me before class, and sit near the door).

- Please do not talk or whisper in-class. If you have a concern about the class, please raise your hand and share it with me; I'll address it suitably. Chances are someone else may be thinking the same thing!

- Please observe posted signs banning food & drink in classrooms. (Custodians cover huge territory.)

- Please turn cell phones off or to vibrate-only. I will try to set an example by remembering to turn off my Blackberry's sounds. ☺

- I appreciate your consideration and observation of these guidelines for decorum in-class. In turn, I will treat you with consideration and respect.

- Please do not bring personal conversations inside, beyond the start of lecture. Thanks!

My aim is to foster an environment of mutual respect – between all of us, students and teacher included.

Questions

~6 (7) commuters

- York
- Waterloo (2)
- Guelph
- McMaster (3)

Class composition

(1)
Physicists: ~1/3 ?
Mathematicians: ~2/3
Citizens: 0
Other (state): 0

(2)
Grad students: ~1/2
Postdocs: 2/5 ?
FI/PI visitors: ~1/6 ?
Faculty: 2
Undergraduates: 2

(3)
Definitely taking for credit: 4
Vacillating: 4
Definitely auditing: ~1/2
Want to discuss this w prof: 1 ☹

(4) Comments on demographics :-