

PHYS 823, Introduction to General Relativity 2011

- **Instructor:** Larry Widrow; Office: 308F Stirling Hall; 533-6858; widrow@astro.queensu.ca
Office Hours: Feel free to drop by anytime. I very much want to hear from students during the course. Tuesday and Thursday after lecture are good bets.
- **Lectures:** Monday, 4:30; Wednesday, 3:30, Friday, 2:30 Stirling 414
- **Required Text:**
General Relativity by J. Hartle
- **On Reserve**
Gravitation by Misner, Thorne, and Wheeler
- **Tutorials:** Tutorials will begin in either week 2 or 3 and will be held on Tuesdays in Room 412A.
- **Assignments:** There will be roughly 8 problem sets over the term. I will announce the problems during the Wednesday lecture and also post them on the course website.
- **Webpage:** The website for the course is www.physics.queensu.ca/~phys414/ and will contain important announcements and problem set assignments and lecture notes (TBA). Though I will try to keep the website up-to-date, you are responsible for the material as presented in the lecture.
- **Midterms** We will have a 1 1/2 hour midterm in week 7
- **The graduate course** Graduate students will be required to research a special topic in general relativity of their own choosing (but approved by me). They will write a short paper (10-15 pages) and present the topic (~ 25 minutes) to the class during Week 12 of the term.
- **Mark Breakdown**

– Assignments	15%
– Midterms	20%
– Final	40%
– Report	25%

- **Problem Sets and Academic Integrity**

You are encouraged to read the discussion of academic integrity which can be found on the Faculty of Arts and Sciences website.

With respect to problem sets, you are permitted to discuss problems with each other. I am also fairly generous with hints. However, you must write up problem sets independently and in your own words and notation.

You may not use problem set solutions obtained from students who took the course in a previous year or posted on a website. If you do stumble upon a solution to a problem in another general relativity text, then write up the solution in your own words *and* cite your source.

The graduate student research project will be a literature based study of a topic in general relativity. Material used in the essay must be properly cited. Please see me for details.

You may, of course, use Maple, Mathematica, integral tables, or web-based mathematics resources. Maple/Mathematica worksheets should be included, preferably as an appendix to the hand-written solution.

Along these lines, your problem set solutions should contain enough descriptive information (words, figures) so as to provide a narrative to the problem. (e.g., we begin with Eq x.y from Hartle, ——. Multiply by Z to obtain ——. ... From the problem, we learn that ..). Simply getting the right answer does not guarantee you a perfect mark.

If you have any questions regarding these policies