PHY 396T, Unique Number 56560
TΘ 9:30 - 10:45 am, Fall 2017

Prerequisite: This course is limited to graduate students in physics, mathematics, or astronomy, or others by special permission.

Instructor: Steven Weinberg

e-mail: weinberg@physics.utexas.edu
Office hours: Tuesday, 11am to noon, or by appointment

Class website: https://courses.utexas.edu

Homework: There will be a few take-home problem sets, on which grades will be based. There will be no in-class examination.

Description of Course: The official title for this course is “Special Topics in Particle Physics,” but a better title would be “Astrophysics for Physicists Whose Main Interests Lie Elsewhere.” The course will cover various topics in astrophysics such as stars, both single and binary, the interstellar medium, and galaxies. It will emphasize calculations that can be done elegantly and analytically, with a minimum of complication. There will be little overlap with courses on general relativity or cosmology, except for a discussion of the gravitational radiation emitted by binary pulsars and coalescing black holes, and its detection by LIGO. A prior course on general relativity or astronomy is not required.

In place of an assigned textbook, detailed lecture notes will be distributed.

Required notices: Please notify me of any modification/adaptation you may require to accommodate a disability-related need. You will be requested to provide documentation to the Dean of Students Office, in order that the most appropriate accommodations can be determined. Specialized services are available on campus through Services for Students with Disabilities. 471-6259, http://www.utexas.edu/diversity/ddce/ssl/. Academic dishonesty will not be tolerated. For more information see http://registrar.utexas.edu/catalogs/g10/ch01/index.html. By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you
must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence. You may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Service for Students with Disabilities, 471-6259.

**Use of e-mail for Official Correspondence with Students:** Changes will be posted on the class website and/or communicated through e-mail, following the University’s official e-mail student notification policy. Students are responsible for keeping the University informed as to changes in their e-mail address. Instructions for updating your e-mail address are available at [http://www.utexas.edu/its/policies/emailnotify.html](http://www.utexas.edu/its/policies/emailnotify.html).

**Final Comment:** I encourage students to ask questions, but I strongly prefer that these be asked in class, so that all students can hear the answers.