Physics 231A: General Relativity
Fall, 2016

Instructor. David R. Morrison. Email: drm@physics.ucsb.edu.

Meeting time. MW 2:00–3:15 in Phelps 2514.

Course description (from the UCSB Catalog). Gravity as geometry, differential geometry, Einstein's equation, relativistic stars, gravitational collapse, black holes, cosmology, gravitational radiation, and special topics.

That description applies to all three quarters; in this quarter, we will treat gravity as geometry, differential geometry, Einstein's equation, and gravitational radiation.

Gauchospace. This course has a Gauchospace site, available to enrolled students and invited guests at `https://gauchospace.ucsb.edu` .

Textbook. We will use "Spacetime and Geometry" by Sean Carroll as our primary textbook. An excellent secondary reference (particularly for some of the more mathematical details) is "General Relativity" by Robert Wald, which will be on reserve in the library.

Office Hours. I will hold office hours in 6135 Broida on Mondays 10-11 a.m. and Tuesdays 5:15-6:15 p.m.[1] and also by appointment at other times.

TA/Grader. There is no TA for this course. I hope to have a grader, to be announced later.

Grading. There will be problem sets assigned each week, due on Wednesdays at 5:00 p.m. There will be no midterm, and a take-home final exam. The course grade will be based on the problem sets (50%) and the final exam (50%).

[1] This has changed from the first version of this syllabus.