

PHYS-4240: General Relativity

ASTR-4240: Gravitation & Cosmology

General Information

Instructor	Professor Wayne G. Roberge (roberw at rpi dot edu) Science Center Room 1C36 276-6454
Office Hours	Mon & Wed from 2:00-3:00 or by appointment*
TA	Matthew Grabala (nkevin at gmail dot com)
TA Office Hours	Mon from 4:00-5:00 in JROWL 1C28 (aka the HBH Lab)
Class Meetings	Tues & Fri, 12:00-1:50 in Ricketts 212
Attendance	Attendance is not required but in-class activities count toward the final grade.
Learning Assessment	Problem sets (45%), 3 exams (45%) and in-class activities (10%).
Learning Outcomes	A student who successfully completes this course will be able to: <ul style="list-style-type: none">• Solve problems in Special and General Relativity.• Express physical laws in covariant form.• Use a metric tensor to relate coordinates to observables.• Describe the generic models of homogeneous, isotropic universes.• Describe the parameters which distinguish different universes.• Describe the parameter values which best describe our universe.
Text	<i>Gravitation and Spacetime, 2nd Edition</i> , by H. Ohanian and R. Ruffini (required). Be sure to check the online errata list frequently.
Course Homepage	http://www.rpi.edu/dept/phys/Courses/ASTR4240/adm/GR_Home.htm
Academic Honesty	Students are responsible for upholding the rules of academic honesty as spelled out in the <i>Rensselaer Handbook</i> . Students are encouraged to collaborate on homework but must write up solutions independently. Students may not copy or paraphrase homework solutions obtained from the internet, textbooks, or any other sources. A single instance of cheating will result in a failing grade for the course.

*NB: These have changed.

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