

Contemporary Physics/Astronomy

Astronomy and Physics 1900, Spring 2023

Lam Hui

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Office hours. Friday 2:30 - 3:30 pm, or by appointment.

Class Meeting Time/Place. Friday 12:30 - 2:30 pm in NWC 602.

Prerequisites. High school algebra and physics.

Requirements. Lecture attendance is mandatory. Unexcused absence will result in a failing grade. There are no problem sets; instead, we will have in-class discussions of interesting problems. Attendance and class participation are thus extremely important.

Topics covered. Relativity and quantum mechanics, and contemporary research making use of them. The goal is to introduce modern physics—space and time, quantum entanglement—without advance mathematics, but in a way that is substantial and leads to a firm grasp of the most fundamental and surprising ideas. In other words, there will be some hard thinking involved, and most importantly, lots of fun.

Texts. The main texts are

- It's About Time – Understanding Einstein's Relativity, David Mermin, Princeton University Press
- Quantum Mechanics – the Theoretical Minimum, Leonard Susskind and Art Friedman, Basic Books

Both (in digital and print formats) are available at Book Culture on W. 112th Street (between Broadway and Amsterdam). Their website is <http://www.bookculture.com>.