

COURSE CALENDAR  
PHYS 5306: "Classical Dynamics"  
Fall 2022

**Topics:**

- I. Lagrangian and Hamiltonian mechanics (sections 1-10, 40): 8/30-9/13
- II. 1-d and central force problems (sections 11, 13-15): 9/15-9/29
- III. Collisions and scattering (sections 16-20): 10/6-10/20
- IV. Small oscillations (sections 21-23): 10/25-11/1
- V. Rigid body motion and non-inertial reference frames (sections 31-36, 38-39): 11/3-11/17 VI: Special relativity: 11/29-12/6

**Important dates:**

- 8/25: Classes begin
- 9/5: Labor Day holiday
- 11/23-11/27: Thanksgiving vacation
- 12/6: Last day of classes

**Exams:**

- Midterm 1: Tuesday 10/4 (in class)
- Midterm 2: Thursday 11/22 (in class)
- Final (oral): Friday 12/9, 1:30 PM - 4:00 PM

**Texts:**

- "Mechanics" by Landau and Lifshitz
- "Classical mechanics" by Benacquistia and Romano
- "Classical mechanics" by Goldstein, Poole, Safko
- "Classical dynamics" by Marion and Thornton
- "The variational principles of mechanics" by Lanczos
- "Collection of problems in classical mechanics" by Kotkin and Serbo