# COURSE CALENDAR PHYS 5306: "Classical Dynamics" Fall 2021

### **Topics:**

I. Lagrangian and Hamiltonian mechanics (sections 1-10, 40): 8/24-9/14

II. 1-d and central force problems (sections 11, 13-15): 9/16-9/30

III. Collisions and scattering (sections 16-20): 10/7-10/21

IV. Small oscillations (sections 21-23): 10/26-11/2

V. Rigid body motion and non-inertial reference frames (sections 31-36, 38-39): 11/4-11/30

## Important dates:

8/23: Classes begin 9/6: Labor Day holiday

11/24-11/28: Thanksgiving vacation

12/1: Last day of classes

#### **Exams:**

Midterm 1: Tuesday 10/5 (in class) Midterm 2: Thursday 11/18 (in class)

Final (oral): Saturday 12/4, 1:30 PM - 4:00 PM

#### **Texts:**

"Mechanics" by Landau and Lifshitz

"Classical mechanics" by Benacquista 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