

## Newtonian Mechanics

College of Creative Studies  
University of California, Santa Barbara

This is the first of 6 courses in the CCS Physics sequence and is required for all CCS Physics majors. Topics to be covered include:

- Vectors, kinematics
- Newton's laws of motion
- Work and energy
- Conservative and non-conservative forces
- Momentum, conservation of momentum
- Center of mass motion
- Collisions
- Systems with variable mass

### Lecture:

**Time:** Tues/Thurs 3:30 - 4:50 p.m.

**Place:** BLDG 387, room 104

**Instructor:** Dr. Ilan Ben-Yaacov, ESB Room 2213, ext 5295, [ilan@engineering.ucsb.edu](mailto:ilan@engineering.ucsb.edu)

**Office Hours:** Tuesday 1:30-3:20pm in ESB 2213

### Problem Sessions:

**Time / Place:** Wed 1:00 - 2:50 p.m. in BLDG 387, room 104

Wed 3:00 - 4:50 p.m. in BLDG 387, room 104

**Instructor:** Dr. Francesc Roig, [roig@physics.ucsb.edu](mailto:roig@physics.ucsb.edu)

**Office Hours:** Mon 2:00-3:50pm in BROIDA Room 6139

**Teaching Assistant:** James Garrison, [garrison@physics.ucsb.edu](mailto:garrison@physics.ucsb.edu)

**TA office hours:** TBA in CCS Room 145 or 148

**Grader:** Kathryn McGill, [kmcgill@umail.ucsb.edu](mailto:kmcgill@umail.ucsb.edu)

**Grader office hours:** TBA in CCS Room 145 or 148

**Required Texts:** *Physics*, 5<sup>th</sup> edition, by Resnick, Halliday, and Krane, 2002, ISBN 0-471-32057-9  
*An Introduction to Mechanics*, by Kleppner and Kolenkow, 1973, ISBN 0-07-035048-5

**Class Web Page:** <http://my.ece.ucsb.edu/PHYSCS31>