

INTRODUCTORY MECHANICS, PHYS 2420, FALL 2019

Instructor: Dr. Hari Nair; hnair@utep.edu

Office: PSCI 223 C Phone: 747-7544

Lectures: Quinn Hall 212, TR 12:00 noon – 1:20 pm

Term: 27 Aug 2019 – 6 Dec 2019

CRN: 12353; Credits 4.0

Office Hours: MWF 13:00-14:00 or by appointment (email me).

Last date to drop the course: 1st Nov 2019

Learning goals: PHYS 2420 introduces the basic concepts of motion (kinematics and dynamics) in one and two dimensions with the help of calculus. An undergraduate-level understanding of algebra and rudimentary calculus are a prerequisite.

Textbook: *Physics for Scientists and Engineers*, Knight, 4th edition. It can be bought bundled with Mastering Physics (the online homework). Go to: <http://www.pearsonmylabandmastering.com> whether you have already bought an access code, or buy it online, you need the following course ID to get into the course: **nair31067**

Grading: Seminar quizzes (10%), Lab (15%), Homework (15%), Midterm 1 (10%), Midterm 2 (20%), Final (30%)

Course schedule

Ch 1) Concepts of motion; Ch 2) Kinematics in one dimension; Ch 3) Vectors and coordinate systems; Ch 4) Kinematics in two dimensions; Ch 5) Force and motion; Ch 6) Dynamics I: motion along a line; Ch 7) Newton's third law; Ch 8) Dynamics II: motion in a plane; Ch 9) Work and kinetic energy; Ch 10) Interactions and potential energy; Ch 11) Impulse and momentum

Disability statement If you have a disability please contact Center for Accommodations and Support Services (CASS) *ph:* 747-5148, email: cass@utep.edu

Office: Union East Building, Room 106

Without CASS documentation, no accommodations can be made. Please take care of this before the first exam.

Military Statement If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the instructor at the beginning of the semester.

Academic Integrity policy

<https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>