

**THE UNIVERSITY OF TEXAS AT EL PASO**  
**COLLEGE OF SCIENCE**  
**DEPARTMENT OF PHYSICS**

Course #: PHYS 3351; CRN: 11097  
Course Title: Analytical Mechanics I  
Credit Hrs: 3  
Term: Fall 2019  
Course Meetings & Location: TR 12:00-1:20 am; PSCI 222A  
Prerequisite Courses: MATH 2326, PHYS 2421  
Instructor: Tunna Baruah  
Office Location: PSCI 120  
Contact Info: Phone # 915-747-7529  
E-mail address: tbaruah@utep.edu  
Fax # 915-747-5447

Office Hrs: MW 12:00-1:00 pm  
Textbook(s), Materials: Required: Classical Dynamics of particles and systems, by Thornton and Marion, 5<sup>th</sup> edition  
Suggested: Analytical Mechanics, Fowles and Cassiday  
Course Objectives (Learning Outcomes): The students will learn about Newtonian mechanics of particles and rigid bodies.  
Course Activities/Assignments: The course will cover chapters from 1 to 7. The topics to be discussed are: vectors and vector calculus, Newtonian mechanics, oscillations, Nonlinear oscillations, gravitation, calculus of variation and Lagrangian dynamics. The objective is that students can apply the methods and analyze the behavior of dynamical systems.  
Assessment of Course Objectives: The students will be required to solve textbook problems using the techniques they learn during the course. The assessment will be made based on regular quizzes, homework, and tests.  
Grading Policy: The grades will be determined from three tests including the final (60%), quizzes (20%), and homework (20%). Quizzes will be based on class work and home-works.  
Make-up Policy: No makeup tests or quizzes. If you are going to miss a class/quiz, inform a week before.  
Attendance Policy: None  
Academic Integrity Policy: See <http://academics.utep.edu/Default.aspx?tabid=23785>  
Civility Statement: No cell phones.  
Disability Statement: If a student has or suspects he/she has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at <dss@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.  
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, please contact me within the first two weeks of class to arrange in advance for makeup exams, etc.

Course Schedule: Test dates (tentative):

Midterm I: Sept. 19

Midterm II: Oct. 17

Midterm III: Nov. 21

Final : Dec 10<sup>th</sup>, 1:00 – 3:45 pm.