

University of Texas at El Paso

College of Science

PHYSICS DEPARTMENT

Course Title:	PHYS 2230, Thermal and Fluid Physics
Credit Hrs:	2
Course Meetings & Location:	TR 12:30PM-1:20PM
Prerequisite Courses:	PHYS 2420
Instructor:	Dr. Tunna Baruah
Office Location:	PSCI 215-A
Contact Info:	Phone # 915-747-7529 E-mail: tbaruah@utep.edu
Office Hrs:	TR 4:30 – 5:00 pm, or through appointment
Textbook(s), Materials:	Required: Physics for Scientists and Engineers with Modern Physics, Knight, 4e Online study tool: MasteringPhysics (Homework is assigned and graded in MasteringPhysics. All students are required to have access of MasteringPhysics.)
Course Objectives (Learning Outcomes):	Develop an understanding of macroscopic properties of fluid. Attain knowledge of thermal physics. The topics covered include pressure, Bernoulli's equation, temperature and heat, the first and second laws of thermodynamics.
Course Activities/Assignments:	Course activities include reading assignment, lectures, homework, three regular exams, and a final exam.
Assessment of Course Objectives:	Outcomes will be measured by homework and exams.
Grading Policy:	Grades will be calculated using the following weights: Homework 20%; Quizzes 20%; Midterm Exams (2) 40%; Final Exam 20%
Make-up Policy:	No credit will be given to missed homework. Attendance at exam is mandatory. Make-up exams can be arranged at the discretion of the instructor. A written excuse will be necessary for rescheduling an exam.
Attendance Policy:	Attendance in class is the responsibility of the students. If class is missed, you are responsible for obtaining the notes from another student or from the instructor.
Academic Integrity Policy:	Acts of academic dishonesty will not be tolerated in this class. Lapses in academic integrity will be referred to the Dean of Students, as required at http://academics.utep.edu/Default.aspx?tabid=23785 .
Civility Statement:	This course requires positive behaviors: Be on time and be focused on your work. Please do not distract yourself or others with telephones or music.

Disability Statement: If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

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 me as soon as it appears that your service will interfere with this course. The instructor will work with you to ensure that your service will not adversely affect your academic progress.

Course Schedule: Tentative timeline and topics: May change with class activity
Chapter 14: Fluids and Elasticity 3 weeks
Chapter 18: A Macroscopic Description of Matter 3 weeks
Chapter 19: Work, Heat and First Law of Thermodynamics 3 weeks
Chapter 20: The Micro/Macro Connection 3 weeks
Chapter 21: Heat Engines and Refrigerators 3 weeks