Textbook and/or Resource Material
Authors: Peter Atkins and Julio de Paula
Publishers: Oxford University Press
Calculator with scientific notation, exponential, log/ln, y^x.

Course Description
Physical Chemistry I is an introduction of thermodynamics including the Thermodynamics laws, thermal chemistry, chemical equilibrium, gas laws, and phase equilibria with extension into modern statistical methods. It is a fundamental approach to the study of physical and chemical phenomena.

Prerequisites
PHYS 1402, MATH 2413 or MATH 2487 with a grade of “C” or better, and MATH 2414 or MATH 2488 (may also be taken concurrently with this class).

Learning Objectives/Outcomes for the Course (This course does not satisfy a core curriculum requirement)
1. Understand the concepts of the principles, laws, and theories of physical chemistry
2. Perform basic calculations regarding heat changes and equilibrium constants
3. Use thermodynamic concepts, data, and models in solving complicated problems
4. Demonstrate the ability to communicate chemical knowledge and work independently
5. Appreciate the importance of thermodynamics in everyday life

Learning Objectives for Core Curriculum Requirements
This course is not part of the UTRGV core curriculum inventory. The course objectives include critical thinking skills, communication skills, empirical and quantitative skills.

Attendance
University policy requires that students attend lectures on time. Any student who misses three lectures without notice and has no excuse can and may be dropped from the course. If students arrive habitually late for class, or are disruptive in any way, they may be asked to leave the room. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

Grading Policies
Done according to scale
100-90 = A, 89-80 = B, 79-70 = C, 69-60 = D, 59 or less = F
Contributors:
- Quizzes (given weekly) 10%
- Homework 10%
- Best Unit Examination 30%
- 2nd Best Unit Examination 25%
- Comprehensive Final Examination 25%

Extra credit: Answer meaningfully questions posed by other students on the Discussion board in Blackboard
Unit Examinations
Style: problems similar to homework, some thinking exercises on the concepts, understand the “vocabulary” well.
Number: three unit examinations plus the final examination.
Difficulty: a few easy things, but then they get difficult.
Time: limited.
Resources: formula sheet and calculator.
Make-up Exams: Only for official university events such as a member of the band for a concert, an athlete for a contest; or an approved holiday. Otherwise the missed examination will be the score that is dropped.
Note: The lowest term exam score will be dropped. You decide which exam you want to drop/miss for any reason. Missing two exams usually results in an F for the course.

Final Examination
5:45 pm-7:30 pm, Thursday, May 09, 2019
Students must take Final exam to pass the course. There is no Make-up exam for the final.

Homework
The homework will be assigned through the semester via the online system WebAssign that you will purchase from the book publisher. I will provide the problems and deadlines as we progress through the semester.

Steps to a Good Result
Although Physical Chemistry has the reputation of being a hard course, there is a way to be successful in this course. As one can see in the Student Learning Outcomes, a major course goal is to understand various fundamental concepts of the principles, laws, and theories of physical chemistry. Once the concepts are properly understood, the student will be able to perform basic calculations and use them to solve problems.

It is imperative that you do homework. The homework problems will be representative of the kinds of questions will be given on the examinations. Each student must complete their own homework online. Solutions to the problems will be posted on Blackboard if they are not provided by WebAssign. It is important that the homework be completed before the solutions are posted for the student to gain adequate practice with the material.

Important Dates
January 14  
First day of classes
January 17  
Last day to add a course or register for spring 2019
January 21  
Martin Luther King Jr. Day – NO classes
April 10  
Last day to drop a course; will count toward the 6-drop rule
April 19-20  
Easter Holiday – NO classes
May 2  
Study Day – NO classes
May 3-9  
Final Exams
May 10-11  
Commencement Exercises

Course Drops
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

Students with Disabilities
Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive academic accommodations should contact Student Accessibility Services (SAS) as soon as possible to schedule an appointment to initiate services. Accommodations can be arranged through SAS at any time, but are not retroactive. Students who suffer a broken bone, severe injury or undergo surgery during the semester are eligible for temporary services.
Pregnancy, Pregnancy-related, and Parenting Accommodations
Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Accessibility Services for additional information and to request accommodations.

Student Accessibility Services:
Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at ability@utrgv.edu. Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at ability@utrgv.edu.

Mandatory Course Evaluation Period
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available on or about:
Module 1 February 13 – 19
Module 2 April 10 – 16
Full Spring Semester April 10 – May 1

Scholastic Integrity
As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism (including self-plagiarism), and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

Sexual Harassment, Discrimination, and Violence
In accordance with UT System regulations, your instructor is a "Responsible Employee" for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct and discrimination. If students, faculty, or staff would like confidential assistance, or have questions, they can contact OVAVP (Office for Victim Advocacy & Violence Prevention) at 665-8287, 882-8282, or OVAVP@utrgv.edu.

Student Services
Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Students Services Center (U Central) for additional information. U Central is located in BMAIN 1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email (ucentral@utrgv.edu) or telephone: (888) 882-4026. In addition to financial aid, U Central can assist students with registration and admissions.

Students seeking academic help in their studies can use university resources in addition to an instructor’s office hours. University Resources include the Learning Center, Writing Center, Advising Center and Career Center. The centers provide services such as tutoring, writing help, critical thinking, study skills, degree planning, and student employment. Locations are:
- Learning center: BSTUN 2.10 (Brownsville) or ELCTR 100 (Edinburg)
- Writing center: BLIBR 3.206 (Brownsville) or ESTAC 3.119 (Edinburg)
- Advising center: BMAIN 1.400 (Brownsville) or ESWKH 101 (Edinburg)
- Career center: BCRTZ 129 (Brownsville) or ESSBL 2.101 (Edinburg)
Tentative Class Schedule

Jan 15    Syllabus and Math Quiz
Jan 17    Chapter 1A
Jan 22    Chapter 1C
Jan 24    Chapter 2A
Jan 29    Chapter 2B
Jan 31    Chapter 2C
Feb 5     Chapter 2D
Feb 7     Chapter 2E

Feb 12    Unit Examination 1 (Chapters 1 and 2A-2C)
Feb 14    Chapter 3A
Feb 19    Chapter 3B
Feb 21    Chapter 3C
Feb 26    Chapter 3D
Feb 28    Chapter 3E
Mar 5     Chapter 4A
Mar 8     Chapter 4B

Mar 12-14 Spring Break – No Classes
Mar 19    Unit Examination 2 (Chapters 2D, 2E and 3)
Mar 21    Chapter 5A
Mar 26    Chapter 5B
Mar 28    Chapter 5C
Apr 2     Chapter 5D, 5E
Apr 4     Chapter 5F
Apr 9     Chapter 6A

Apr 10    Last day to drop classes with DR grade or withdraw with W grade
Apr 11    Chapter 6B

Apr 16    Unit Examination 3 (Chapters 4 and 5)
Apr 18    Chapter 6C
Apr 23    Chapter 6D
Apr 25    Chapter 1B, Chapter 16A
Apr 30    Chapter 16B, 16C
May 2     Study Day

May 9     Final Examination COMPREHENSIVE (Chapters 1-6 and 16)
(5:45pm-7:30pm)