

## **Course Syllabus**

### **Course Title: General Chemistry II**

Course Number: 1412

Trimester: Summer 2011

Course Director: Frank Pishva

fpishva@parkercc.edu

Office Hours: M 1-1:50 pm (E 237)

Lab Director/Instructors: Frank Pishva

Trimester Credit Hours: 4

Total Contact Hours Per Trimester: 90

Class Meeting Time: MTWR 2-3:50 pm

Lab Hours Per Week: 4 (M 4-7:50 pm)

Lab Contact Hours/Trimester: 30

### **GENERAL APPROACH TO TEACHING:**

In an attempt to keep students involved and engaged, I employ several active learning techniques. To get students involved in the process of learning, I have found that giving varied assignments and multiple examples are effective techniques.

### **ESTIMATE OF STUDENT WORKLOAD:**

5 hours outside of week to review new material; Test questions will come from suggested homework problems, activities done in class and class examples. Homework is not required but is highly suggested for success in the class

### **COURSE DESCRIPTION:**

Our mission is to provide students with core knowledge in basic sciences so they can become successful as Parker students, on board exams, in treating patients, and eventually becoming chiropractors and leaders in the field of wellness.

The topics covered will be chemical bonding, state of matter, solution chemistry, chemical kinetics, chemical equilibrium, chemistry of acids and bases, thermodynamics, electrochemistry, nuclear chemistry, and introduction to organic chemistry.

Test questions will come from suggested HW problems, activities done in class and class examples. Homework is not required but is highly suggested for success in the class

### **LEARNING OUTCOMES:**

At the completion of this course the student should be able to:

1. Identify the intermolecular forces
2. Interpret phase diagram and heating curve
3. Calculate solutions problems such as molarity, molality, and parts per volume
4. Graph kinetic problems and interpret the kinetic results
5. Calculate chemical equilibrium problems and know the correlation of Le Chatelier's principle
6. Predict acid base reactions and calculate pH
7. Predict and calculate buffer effectiveness
8. Interpret titration curves
9. Predict the stability of reactions based on the concepts of thermodynamics
10. Calculate concepts in electrochemistry and understand its use with batteries
11. Distinguish between nuclear and chemical reactions
12. Classify organic compounds

**Lab Objectives:** At the completion of this course, the student should be able to:

1. Identify molecules, compounds, state of matter, and mole of substance
2. Develop a paper chromatography and interpret the results
3. Calculate the kinetics involved with the cooling of water
4. Determine the pH of common household chemicals
5. Perform a titration, develop a titration curve and interpret the results
6. Synthesize different polymers

**ASSESSMENT:**

Assessment is given through in class examination (see course calendar for dates) and weekly laboratory reports.

**PREREQUISITES:**

Enrollment in Parker University, High School chemistry, College algebra

**REQUIRED TEXTBOOKS:**

Chemistry, A Molecular Approach by Nivaldo J. Tro ISBN: 0-13-100065-9

**SUPPLIES:**

Scantron, lab coat and goggle, scientific calculator

**GRADING SYSTEM:**

Evaluation is an integral part of the educational process and is used as an educational tool to help students identify problem areas, to recognize and reward achievement, and to identify students who are unable to meet the rigors of the curriculum. Final course grades and their interpretation are listed below:

Grade	Numerical Value	Grade Point Average	Interpretation of Academic Achievement
A	89.5 – 100	4.0	Excellent
B	79.5 - 89.49	3.0	Above Average
C	69.5 - 79.49	2.0	Satisfactory
F	69.49 or Below	0.0	Unacceptable

This grading scale is strictly adhered to. There are NO exceptions.

Tests: 4 tests	80% (20% each)	Final Exam is comprehensive
Labs:	10%	
Project:	10%	
TOTAL	100%	

**LABS:**

Lab coat and goggles

**OPEN LABS**

Not applicable

**90/90 RULE:**

Not applicable

**EXTRA CREDIT:**

Not applicable

**A complete listing of all Academic policies is found on the MyParker Website/Academic Home Page/Common Policies:**

- Absences for Religious Holidays
- Academic Dishonesty
- Academic Promotion, Probation and Dismissal Policy
- Appeals
- Assistance and Accommodations
- Attendance Policy
- Audio/Video Taping
- Cell Phones and Electronic Devices in Class
- Classroom Behavior
- Communications
- Computer Usage
- Examinations (Make up Exams/Lab Practicals)
- Altering Grades on Exams
- Exam Review
- Final Examinations
- Grading System
- Late Instructors to Lecture/Lab
- Missed Exam Policy
- Professional Decorum
- Special Needs Consideration
- Student Bereavement Policy
- Excused Absences

**DISCLAIMER**

The lecture outlines contained in the lecture booklet are NOT intended to represent the entire content of the course. A lecture outline is intended to be a guide to the lecture. The responsibility of the instructor is to follow the outline, expand the concepts and give explanation and illustrations to clarify content. The role of the student is to attend lecture and take notes over material presented by the lecturer that explains and illustrates the material listed in the outline. It is also the responsibility of the student to question the instructor if explanations and illustrations are not clearly presented or understood.

The instructors take no responsibility for the accuracy or completeness of old notes, quiz questions or exam questions that students may purchase, acquire from off of the internet or be given by previous students.

**IMPORTANT NOTE:**

The provisions contained in this syllabus do not constitute a binding contract between the student and the Parker University. These provisions may be changed at any time and for any reason at the discretion of the Course Director. When it is necessary to make changes to this document, appropriate notice (at least one week, if at all possible) will be given to the student(s).

