

Course Title: General Inorganic Chemistry II

Course Prefix: **Chemistry** Course No.: **Chem1043** Section No.: **P02**

Department of | Chemistry

College of | Arts and Sciences

Instructor Name: **Max Winshell A. Fontus**
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Office Hours: **MW: 11:30 AM – 12:20 PM; M 4:00 – 4:50 PM**
Virtual Office Hours: **1) eCourses (<http://ecourses.pvamu.edu/>) is PVAMU's official course management system for online or web-assist instruction, and 2) http://college.cengage.com/chemistry/general/shultz/engineers/1e/student_home.html**

Course Location: **New Science Bldg Room 104**

Class Meeting Days & Times: **MWF: 10:00 – 10:50 AM**

Catalog Description: **General Inorganic Chemistry II. (3-0) Credit 3 semester hours. A continuation of CHEM 1033. Bonding theory and molecular structure, intermolecular forces properties of solutions, chemical kinetics, chemical equilibrium, acid/ base equilibria, thermodynamics, electrochemistry and nuclear chemistry and introduction to organic chemistry**

Prerequisites: **MATH 1113, CHEM1033**
Co-requisites:

Required Text: Chemistry: an atoms-focused approach, by Gilbert, Kirss, and Foster ISBN 978-0-393-91234-0

Recommended Text/Readings: General Chemistry II: Chem 1043, by Max Fontus ISBN: 978-0-9963004-9-0

Access to Learning Resources: PVAMU Library:
phone: (936) 261-1500;
web: <http://www.tamu.edu/pvamu/library/>
University Bookstore:
phone: (936) 261-1990;
web: <https://www.bkstr.com/Home/10001-10734-1?demoKey=d>

Course Goals or Overview:

The goal of this course is to establish a fundamental understanding of atomic and molecular structure of matter as well as chemical bonding and interactions, and the ability to perform basic stoichiometric calculations

Course Outcomes/Objectives

At the end of this course, the student will

- 1 Be able to understand chemical bonds, bonding theories and basic molecular structure
- 2 Be able to understand intermolecular forces and various states of matter, as well as solution properties
- 3 Demonstrate the ability to obtain basic knowledge of chemical kinetics and equilibrium
- 4 Define basic knowledge of electrochemistry and nuclear chemistry
- 5 Be able to perform calculations on various equilibria in aqueous solution

Course Requirements & Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course. *Note: See Program Outcomes in True Outcomes*

Exams – written tests designed to measure knowledge of presented course material

Exercises – online and written assignments designed to supplement and reinforce course material

Project – one special and present topic in the field of chemistry will be assigned and it is designed to measure ability to apply presented course material

Class Participation – daily attendance and participation in class discussions

Grading Matrix

Instrument	Value (points or percentages)	Total	Percentage Pts	Total
Assignments	18 assignments at 10 points each	180	$(180 \cdot .55)/660 = 15$	160
Group Project	1 project	50	$(50 \cdot .92)/460 = 10$	50
Exams	4 exams at 50 points each	200	$(200 \cdot 1.32)/660 = 40$	150
Final Exam	50	50	$(50 \cdot 2.64)/660 = 20$	50
Quizzes	9 at 20 points each	180	$(180 \cdot .55)/660 = 15$	
Total:		660	100	410

Grade Determination (%):

A = 87 - Above;

B = 77 - 86;

C = 67 - 76;

D = 57 - 66;

F = 56 or below

Course Procedures

Submission of Assignments: please visit <http://bit.ly/saplinginstructions> for instruction on how to register for my course so you can access homework assignments and sometimes quizzes. The name of the course of the Sapling website is : **Prairie View A&M University-CHEM 1043 – Spring16 - FONTUS**

Formatting Documents for projects:

Microsoft Word is the standard word processing tool used at PVAMU. If you're using other word processors, be sure to use the "save as" tool and save the document in either the Microsoft Word, Rich-Text, or plain text format.

Exam Policy

Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook). Exams will usually contain 10 to 15 extra credit points

All exams count. **No** drop of the lowest score.

Only Scratch paper and ACS approved Periodic Table will be provided to students.

Students need to bring Calculator, Scantron (blue or green color) and Pencil (No. 2).

Students with excused absences will be allowed to take make-up exams within a limited period of time and at a time designated by instructor

TENTATIVE 16 WEEK CALENDAR

Week One: Topic	Molecular Geometry and Bonding Theory
Chapter (s):	01
Assignment (s):	TBD
Week Two: Topic	Molecular Geometry and Bonding Theory
Chapter (s):	01
Assignment (s):	TBD
Week Three: Topic	Intermolecular Forces
Chapter (s):	02
Assignment (s):	TBD
Week Four: Topic	Molecular Geometry: Shape Determines Function
Chapter (s):	01 and 02
Assignment (s):	TBD
Week Five: Topic	Solid State Chemistry
Chapter (s):	03
Assignment (s):	TBD
Week Six: Topic	Solid State Chemistry
Chapter (s):	03
Assignment (s):	TBD
Week Seven: Topic	Chemical Kinetics
Chapter (s):	04
Assignment (s):	TBD
Week Eight: Topic	Chemical Kinetics
Chapter (s):	03 - 04
Assignment (s):	TBD
Mid-Term Exam	
Week Nine: Topic	Chemical Equilibrium
Chapter (s):	05
Assignment (s):	TBD
Week Ten: Topic	Chemical Equilibrium
Chapter (s):	05
Assignment (s):	TBD
Week Eleven: Topic	Acid-Base Reactions
Chapter (s):	06
Assignment (s):	TBD
Week Twelve: Topic	Complex Ion Chemistry
Chapter (s):	06 – 07
Assignment (s):	TBD
Week Thirteen: Topic	Thermodynamics Equilibrium
Chapter (s):	07 - 08
Assignment (s):	TBD
Week Fourteen:	Electrochemistry
Topic	
Chapter (s):	08 – 09
Assignment (s):	TBD
Week Fifteen Topic	Review/19
Chapter (s):	01 –019
Assignment (s):	TBD

Week Sixteen Final Exam

University Rules and Procedures

Disability statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy:

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Technical Considerations for Online and Web-Assist Courses

Minimum Hardware and Software Requirements:

- Pentium with Windows XP or PowerMac with OS 9
- 56K modem or network access
- Internet provider with SLIP or PPP
- 8X or greater CD-ROM
- 64MB RAM
- Hard drive with 40MB available space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0 /plug-ins
- Participants should have a basic proficiency of the following computer skills:
 - Sending and receiving email
 - A working knowledge of the Internet
 - Proficiency in Microsoft Word
 - Proficiency in the Acrobat PDF Reader
 - Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette): students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use APA standards to reference sources.

Technical Support: Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282

Communication Expectations and Standards:

All emails or discussion postings will receive a response from the instructor within 48 hours.

You can send email anytime that is convenient to you, but I check my email messages continuously during the day throughout the work-week (Monday through Friday). I will respond to email messages during the work-week by the close of business (5:00 pm) on the day following my receipt of them. Emails that I receive on Friday will be responded to by the close of business on the following Monday.

Submission of Assignments:

Assignments, Papers, Exercises, and Projects will distributed and submitted through your online course. Directions for accessing your online course will be provided. Additional assistance can be obtained from the Office of Distance Learning.

Discussion Requirement:

Because this is an online course, there will be no required face to face meetings on campus. However, we will participate in conversations about the readings, lectures, materials, and other aspects of the course in a true seminar fashion. We will accomplish this by use of the discussion board.

Students are required to log-on to the course website often to participate in discussion. It is strongly advised that you check the discussion area daily to keep abreast of discussions. When a topic is posted, everyone is required to participate. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.