CHEM 1204
GENERAL INORGANIC CHEMISTRY LABORATORY II
SUMMER 2022

Instructor: Dr. Gururaj M. Neelgund
Section # and CRN: P50 - 30064
Office Location: Room# 213 E. E. O'Banion Science Building
Office Phone: 936-261-3193
Email Address: gmneelgund@pvamu.edu PREFERRED MODE OF CONTACT!!
Office Hours: F 11:00am - 1:00pm
Mode of Instruction: Face to face
Course Location: Room# 218 at New (E. E. O'Banion) Science Building
Class Days & Times: MTWR: 2:00 pm - 4:50 pm
Catalog Description: General Chemistry Laboratory II – (0-4) Credit 2 semester hours. For students majoring or
minoring in chemistry. A general laboratory course covering aspects of volumetric and
gravimetric analysis, qualitative analysis, determination of chemical and physical
properties, and chemical synthesis

Prerequisites: Math 1113
Co-requisites: CHEM 1043
Required Texts: Modular Laboratory Program in Chemistry
Recommended Texts: Chemistry & Principles and Reactions – Masterton and Hurley 8th edition

Student Learning Outcomes:

<table>
<thead>
<tr>
<th>Upon successful completion of this course, students will be able to:</th>
<th>Program Learning Outcome # Alignment</th>
<th>Core Curriculum Outcome Alignment</th>
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<tbody>
<tr>
<td>[NOTE: Begin each outcome with a verb]:</td>
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<tr>
<td>1 Be able to use conversion factors in metric or U.S. units and apply the</td>
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<td>significant figure concept in stoichiometric calculations.</td>
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<td>2 Be able to use basic laboratory equipment such as the Venier pH meter,</td>
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<td>temperature probe, and volt meter as well as the buret, electronic balances</td>
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<td>and the centrifuge.</td>
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<td>3 Demonstrate the ability to prepare solutions from solids and by dilution.</td>
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<td>4 Define chemistry concisely and with clarity from a practical stand point.</td>
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<td>5 Be able to write correct formulas of compounds, write balanced chemical</td>
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<td>equations and identify various reaction types through observation.</td>
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Major Course Requirements

Method of Determining Final Course Grade
Each lab experiment will be graded with a maximum score of 100 points. The pre-laboratory assignment
which must be completed for all experiments, accounts for 30% of the grade of each lab. Each pre-
laboratory assignment must be handed in at the beginning of the class where the experiment is performed.
The in-laboratory data sheets and the post-laboratory assignments account for 30% each of them and they
must be handed in during the next experiment. Performance of the students during experiments will
account for the remaining 10% of the grade of each experiment.
<table>
<thead>
<tr>
<th>Course Grade Requirement</th>
<th>Value</th>
<th>Total</th>
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<tbody>
<tr>
<td>Lab reports and execution</td>
<td>11 labs at 100 points each</td>
<td>1100</td>
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</tbody>
</table>

**Total:** 1100

**Finding Average:** Total received points/ number of labs

**Grading Criteria and Conversion:**
A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F < 60%

**Course Procedures or Additional Instructor Policies**

**Taskstream**
Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments may be considered an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

**Semester Calendar**

**Week One:** Topic #1-TECH 430: Laboratory Techniques: Safety Precautions: Safety Quiz: Safety Film: Issue Lab Manual
- Chapter (s): 1
- Assignment (s): Lab report

**Week one:** Topic #2-ANAL 492: Separating and Identifying Food Dyes by Paper Chromatography
- Chapter (s): 2
- Assignment (s): Lab report

**Week one:** Topic #3-ANAL 356: Gravimetric Determination of Sulfate
- Chapter (s): 3
- Assignment (s): Lab report

**Week two:** Topic #4-SYNT 439: Synthesizing Aspirin
- Chapter (s): 4
- Assignment (s): Lab report

**Week two:** Topic #5-Anal 437: Evaluating the Calcium Ion Content in Commercial Dried Milk Powers
- Chapter (s): 5
- Assignment (s): Lab report

**Week two:** Topic #6-Anal 403: Estimating the Copper Content of Malachite Using Microscale Colorimetric Techniques
- Chapter (s): 6
- Assignment (s): Lab report

**Week three:** Topic #7-PROP 391: Solutions
- Chapter (s): 7
- Assignment (s): Lab report

**Week three:** Topic #8-PROP 421: Determining the Solubility of an Unknown Salt at Various Temperatures
- Chapter (s): 8
- Assignment (s): Lab report

**Week three:** Topic #9-KINE 505: Studying the Rate of the Reaction of Potassium Permanganate and Oxalic Acid
- Chapter (s): 9
- Assignment (s): Lab report

**Week four:** Topic #10-EQUIL 404: Studying Chemical Equilibria and Applying Le Chatelier’s Principle Using Microscale Techniques
- Chapter (s): 10
- Assignment (s): Lab report

**Week four:** Topic #11-EQUIL 499: Studying the pH of Strong Acid, Weak Acid, Salt, and Buffer Solutions
- Chapter (s): 11
- Assignment (s): Lab report

**Week four:** Topic #12-EQUIL 400: Estimating the Solubility Product Constant of Strontium
Student Support and Success

John B. Coleman Library
The library and its partners have as their mission "to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service" and to support the University's core values of "access and quality, diversity, leadership, relevance, and social responsibility" through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty.

Center for Academic Support
The Center for Academic Support (CAS) offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Tutoring Center is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library

COMPASS
The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library

Writing Center
The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Location: Hilliard Hall 121

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.

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.

TECHNICAL CONSIDERATIONS

Minimum Recommended Hardware and Software:
- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15” monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups

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 (or a program convertible to 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 as directed. Students are to
be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

**Technical Support:**
Students should go to https://mypassword.pvamu.edu/ if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

**Communication Expectations and Standards:**
Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

**Discussion Requirement:**
Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. 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.

**COVID-19 Campus Safety Measures**
To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, PVAMU has adopted policies and practices to limit virus transmission.

- **Self-monitoring** - Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction.

- **Face Coverings** - Face coverings (cloth face covering, surgical mask, etc.) are recommended in classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is difficult to reliably maintain.

- **Physical Distancing** - Physical distancing should be maintained between students, instructors, and others in course and course-related activities where possible.

- **Personal Illness and Quarantine** - Students required to quarantine are to participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities. Students experiencing personal injury or illness that is too severe for the student to attend class qualify for an excused absence. To receive an excused absence, students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu.