

Sophomore Seminar

CHEM 2130

Fall 2016

Time / Date / Location

Class will meet Friday from 12:20 to 1:10.

Purpose:

This course is designed for chemistry majors in the B.S. program. This class will serve as a survey course that introduces students to scientific literacy and research opportunities. This course is designed to familiarize the student with methods and styles of chemical communication, and explore the quantitative and qualitative understanding between mathematical science expressions/models and the nature/behavior of matter.

Text: "ACS Style Guide: Effective Communication of Scientific Information" by Coghill and Garson. 3rd Ed., American Chemical Society, Publisher.

Learning Outcomes

- Each student will acquire a basic understanding of the mathematical expressions related to thermodynamic, kinetic, and quantum mechanical nature of matter and its interactions. Each student will be able to mathematically manipulate and explain the meaning of these models.
- Understand and interpret formal scientific papers and scientific presentations
- Use common chemical databases to find chemical information based on subject and compound searches
- Plot and obtain meaningful results from provided research data;
- Illustrate various molecular structures and mechanistic reaction schemes by using chemical drawing software
- Understand and discuss the American Chemical Society (ACS) Chemist's Code of Conduct and the ACS Ethical Guidelines to Publication of Chemical Research
- Communicate scientific ideas effectively in oral and written presentations in three traditional formats: orally; as a written report; and as a scientific poster

| Instructors | Office | Office Hours |
|--------------------------|--|---|
| Douglas A. Stuart, Ph.D. | TLC 2125 678-839-6022 office 773-330-1392 cell dstuart@westga.edu | Drop-ins are usually ok, Check the door if I am out. |

Exams and Quizzes

There will be a midterm and a final exam. The exams will be cumulative

Lecture

Lecture will meet once a week and cover the course material. We will also work on assignments during the lecture hour.

Homework

Homework will be assigned, collected, and checked for completeness. Your homework must be stapled and legible when turned in.

Attendance Policy

You are expected to be present and prepared for each class meeting. Due dates for homework and examinations are scheduled and will not be moved. No late work will be accepted and no make-up exams will be given.

E-mail Policy

The primary means of communication with the instructor will be via e-mail. Since email has proliferated, and now constitutes the bulk of extra-classroom conversation between student and instructor, it must be subject to normal rules of formality. Therefore, all e-mail communication will follow the guidelines enumerated here. E-mail should be composed in formal, professional language, and with attention to the propriety accorded to the position of the writer, and the addressee. E-mails that do not meet these standards will not be returned by the instructor. E-mail should not ask questions whose answers are contained in the course syllabus. Such e-mail will not be returned by the instructor. Students should avoid asking questions in e-mail that should be raised either in class, or in individual consultation with the instructor. These include questions of an excessively conceptual nature, and questions that expect an unreasonable amount from the instructor. A good rule of thumb: if you question cannot be answered in two sentences or less, or if it is a question that you should solve on your own through the course of your reading, then it is not appropriate for e-mail.

Lastly, e-mail will only be answered during normal work hours (9am – 5pm) Monday through Friday. E-mails sent outside of those hours, or on the weekends, *will not* be returned until the resumption of normal business hours.

Academic Dishonesty

The Honor Code of the University of West Georgia is in effect. Any infractions will be mediated through this process.

All Students Please Note!

For important policy information, i.e., the UWG Honor Code, Email, and Credit Hour policies, as well as information on Academic Support and Online Courses, please review the information found in the **Common Language for Course Syllabi** documentation at http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf. Additions and updates are made as institution, state, and federal standards change, so please review it each semester.

Grades

Your course average will be calculated as follows:

$(\text{Exam/Quiz Average} \times 0.3) + (\text{H.W.} \times 0.3) + (\text{Papers and Presentations} \times 0.4) = \text{Course Average}$

[90% - 100% = A] [80% - 89% = B] [70% - 79% = C] [60% - 69% = D] [0% - 59% = F]

Tentative Schedule

| Class | Date | Topic |
|-------|--------|------------------------------|
| 1 | 19-Aug | Introduction, syllabus, etc. |
| 2 | 26-Aug | The scientific method |
| 3 | 2-Sep | Writing a lab report |
| 4 | 9-Sep | Writing a lab report |
| 5 | 16-Sep | Graphical analysis |
| 6 | 23-Sep | Literature research tools |
| 7 | 30-Sep | Posters and Presentations |
| | 7-Oct | No Class, Fall Break |
| 8 | 14-Oct | Mid Term Exam |
| 9 | 21-Oct | How to read a research paper |
| 10 | 28-Oct | Careers in chemistry |
| 11 | 4-Nov | Careers in chemistry |
| 12 | 11-Nov | Careers in chemistry |
| 13 | 18-Nov | Research Presentation |
| | 25-Nov | No Class Thanksgiving |
| 14 | 2-Dec | Final Exam |