CHEMISTRY 161: GENERAL CHEMISTRY I

INSTRUCTOR: Dr. Kayla Gary EMAIL: kmgary@hawaii.edu

LECTURE HOURS: MWF 11:30am - 12:20pm in Bilger 152

OFFICE HOURS: MWF 12:20 - 1:30pm, Tues 11:45am-1pm in Bilger 247A (and

by appointment)

REQUIRED MATERIALS

- By registering for this course, you will automatically be given access to:
 - o eTextbook: <u>Chemistry: A Molecular Approach</u>, by Nivaldo Tro, 4th Edition, Pearson. (You may additionally purchase a hard-copy textbook through the Pearson website if you wish.)
 - Pearson on-line homework access "Mastering Chemistry." PLEASE REFER TO MASTERING CHEMISTRY REGISTRATION INSTRUCTIONS ON LAULIMA FOR MORE DETAILS.
- iClicker for in-class participation credit. PLEASE REFER TO iCLICKER REGISTRATION INSTRUCTIONS FOR MORE DETAILS.
- Scientific calculator (graphing or non-graphing)

CHEMISTRY 161 TENTATIVE LECTURE SCHEDULE (3 UNIT COURSE)

| Week | Tuesday | Thursday |
|---|---|----------|
| Week 1 | Introduction to Chemistry 161 | |
| Jan 13 th – 17 th | Chapter 1: Matter, Measurement, & Problem Solving | |
| Week 2 Jan 20 th – 24 th | No Class Monday Jan 20th: Martin Luther King Jr. Day Chapter 2: Atoms & Elements | |
| Week 3 Jan 27 th – 31 st | Chapter 2: Atoms & Elements Chapter 3: Molecules, Compounds, & Chemical Equations | |
| Week 4 Feb 3 rd – 7 th | Chapter 3: Molecules, Compounds, & Chemical Equations | |
| Week 5 Feb 10 th – 14 th | Exam 1 Monday February 10th: Chapters 1-3 Chapter 4: Chemical Quantities & Aqueous Reactions | |
| Week 6 Feb 17 th – 21 st | No Class Monday February 17th: Presidents Day Chapter 4: Chemical Quantities & Aqueous Reactions | |
| Week 7 Feb 24 th – 28 th | Chapter 4: Chemical Quantities & Aqueous Reactions Chapter 7: The Quantum-Mechanical Model of the Atom | |
| Week 8 March 2 nd – 6 th | Chapter 7: The Quantum-Mechanical Model of the Atom | |
| Week 9 March 9 th – 13 th | Chapter 8: Periodic Properties of the Elements Exam 2 Friday March 13th: Chapters 4, 7, 8 | |
| Week 10 March 16 th – 20 th | Spring Break: No Class March 16 th – 20 th | |
| Week 11 March 23 rd – 27 th | Chapter 9: Chemical Bonding I: The Lewis Model | |
| Week 12 March 30 th – April 3 rd | Chapter 9: Chemical Bonding I: The Lewis Model | |
| Week 13 April 6 th – 10 th | Chapter 10: Chemical Bonding II: Molecular Shapes, VB Theory, MO Theory No Class Friday April 10th: Good Friday | |
| Week 14 April 13 th – 17 th | Chapter 10: Chemical Bonding II: Molecular Shapes, VB Theory, MO Theory Chapter 5: Gases | |
| Week 15 April 20 th – 24 th | Exam 3 Monday April 20 th : Chapters 9, 10, 5 Chapter 6: Thermochemistry | |
| Week 16 April 27 th – May 1 st | Chapter 6: Thermochemistry | |
| Week 17 May 4 th – 8 th | Chemistry 161 Course Review Last Day of Instruction Wednesday May 6 th | |
| Week 18 May 11 th – 15 th | Cumulative Final Exam Monday May 11th 12-2pm in Bilger 152 | |

^{*}Changes may be made at any time at the discretion of the instructor*

GRADING & EVALUATION SYSTEM FOR CHEMISTRY 161 LECTURE:

HOMEWORK (10%): Homework will be completed on-line through Pearson's interactive homework system called "Mastering Chemistry." PLEASE REFER TO MASTERING CHEMISTRY REGISTRATION INSTRUCTIONS ON LAULIMA FOR DETAILS ON HOW TO REGISTER. Homework is due on various days and you are responsible for submitting your homework on time. No late homework will be accepted. There is an abundance of homework problems to practice for each chapter. In order to receive full credit for each chapter's homework, you must successfully complete 25 questions per chapter (every question is worth one point). Each chapter has ~80 points worth of problems available to practice, however you will only receive credit for up to 25 POINTS per chapter.

IN CLASS PARTICIPATION WITH ICLICKER (10%): The iClicker 1, iClicker 2, or any personal device such as a cell phone, laptop, or tablet can be used to assess in-class attendance and participation during lecture and will account for 10% of your overall grade. Questions answered in lecture will not be graded for accuracy but rather for participation and engagement in the course. Please see the registration instructions on Laulima for how to correctly register your iClicker and sync your account to Laulima. Participation credit will be assessed starting on the second week of school.

EXAMS (60%): Three multiple choice exams will be given throughout the term to determine students' level of mastery of Chemistry 161 material and will cover approximately 3 chapters each. Each exam will count for 20% of the overall grade. Makeup exams will not be given and will be given only on the assigned day and time. Only excused medical absences will allow students to take an exam at a later date. Otherwise, no credit will be given. The instructor cannot make accommodations for conflicting work schedules, vacation plans, or any other non-emergency situations. Any medical emergency must be documented by a hand-written doctor's note by a local doctor with a physical address and phone number on the heading of the note. Make-up exams are always at the discretion of the professor, regardless of the excuse.

FINAL EXAM (20%): There will be a multiple choice cumulative final exam given at the end of the course and will count for 20% of your total lecture grade. **The final exam will be given on Monday May 11th from 12:00-2:00pm in Bilger 152.** Make-up exams will not be given and will be given only on the assigned day and time.

GRADING: The grading scale for lecture is as follows:

| Overall % | Grade Earned |
|--------------|---------------------|
| 98% or Above | A+ |
| 93-97% | A |
| 90-92% | A- |
| 88-89% | B+ |
| 83-87% | В |
| 80-82% | B- |
| 78-79% | C+ |
| 73-77% | С |
| 70-72% | C- |
| 68-69% | D+ |
| 63-67% | D |
| 60-62% | D- |
| 59% or Below | F |

*Scores *may* be curved at the end of the semester and is up to the discretion of the professor.

INSTRUCTOR METHODS & COURSE POLICIES

Students should read the textbook for the upcoming lecture material prior to coming to class, **as well as take many hand-written notes in lecture to enhance learning.** You are encouraged to go to the office hours of the professor or *any* lab TA for help working through chemistry problems. Additionally, the Learning Emporium and the Learning Assistance Center has knowledgeable people willing to help with Chemistry 161 as well as other math and science courses. A list of free tutoring resources will be posted on Laulima by the second week of class.

Students are responsible for keeping track of their own points along with the instructor. It is essential that students retain all returned assignments and course information. Late work will not be accepted; students must turn in assignments at assigned dates and times only. Every student is accountable for all work missed. Instructors are under no obligation to make special arrangements for students who are absent.

ATTENDANCE: You are required to attend the lecture section for which you are enrolled. The instructor reserves the right to request student ID verification at any time during this course. You may be dropped from the course if you have consecutive unexcused absences in lecture.

STUDENTS WITH DISABILITIES

Students with conditions that may require classroom or test accommodations are encouraged to contact me privately and contact the KOKUA Program (the Office for Students with Disabilities). KOKUA can be reached at (808) 956-7511 or (808) 956-7612 (voice/text) in Room 013 of the Queen Lili'uokalani Center for Student Services.

ACADEMIC DISHONESTY & CONDUCT

Any act of plagiarism, or any other attempt to defraud the academic process will meet with reprimand and possible dismissal from the course without credit. Cheating in any form on an assignment will, at a minimum, result in a zero grade on that assignment and the filing of an Academic Dishonesty Report Form describing the incident with the Vice President of Student Affairs. Prior or future cheating incidents anywhere in the university could result in expulsion. Cheating includes: the copying or exchanging of information during exams or quizzes, using banned materials, information, or devices during exams/quizzes, and plagiarism. Exact reproduction of written materials from other students on any lab report will result in all parties receiving a zero. An on-line version of the Academic Honesty Policy for the university can be found at:

http://www.studentaffairs.manoa.hawaii.edu/policies/conduct_code/