

## CH-103L-60-2 College Chemistry Lab

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**Instructor:** Ms. Showman  
**Email:** angelique.showman@chaminade.edu  
**Time:** Saturday 0800 - 1210  
**Location:** Chaminade Main Campus, Henry Hall Lab 8  
**Lab Manual:** Handouts

### Course Description

Concurrent registration in CH 103 is required. The lab section is designed to enhance your understanding of scientific methods and concepts by bringing a practical understanding of chemistry through hands-on experience in different techniques.

### Safety Requirements

Students are **required** to practice safety precautions to include wearing safety glasses; closed toed, covered shoes; and lab coats while performing experiments. Long pants are recommended. If you have long hair, it is recommended to tie it back away from the face. Working in a lab can be messy, so consider wearing very casual attire in case it gets soiled during laboratory work. Only registered students will be allowed in the laboratory. For your safety, food and drink including chewing on gum or candy is not permissible in the lab.

### Course Requirements

A scientific hand-held calculator with log function is required.  
Access to Word/Excel or other word processing and spreadsheet program.

### Course Expectations

Students are expected to set up and perform chemistry-based experiments, while adhering to laboratory safety precautions set forth. Students will also need to keep a complete, thorough and relatively neat laboratory notebook.

### Student Conduct

Please refer to the Student Handbook for the CUH policies on Classroom Behavior and Academic Dishonesty.

## Music Devices and Cell Phones

The use of music devices, cell phones, smart phones, PDAs (personal digital assistant), pagers or any other electronic device with the potential to make noise is prohibited during lab. **The use of these devices during lab is a safety issue!** These devices must be turned off or placed on silent (not vibrate) during the entire lab time. During the final exam, these devices need to be turned off; if during an exam, your electronic device makes noise (this includes vibrating), you may be asked to turn in your exam for a grade of zero and leave the room while the rest of the class finishes. The use of any other electronic device other than an approved scientific calculator during the exam or will be considered a form of academic dishonesty and will result in a failing grade for that assignment. Students who cannot comply with this rule will be asked to leave class. Please refer any questions to the Dean of Natural Sciences and Mathematics. That being said, the ability to take pictures, access the internet or run specific programs maybe acceptable based on instructor's instructions; however, checking email, texts, Facebook, Twitter or other social networks, etc. is not acceptable and students who engage in this kind of behavior will loose participation points for that lab.

## XI. Additional Departmental and University Policies

### 1. Electronic Devices

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. You will be asked to leave class and marked absent if you do not comply. This will negatively affect your grade. Please refer any questions to the Dean of Natural Sciences and Mathematics.

### 2. ADAA Statement

2.1 Pursuant to several federal and state laws, including the Americans with Disabilities Act of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at 808-735-4845 for further information.

### 3. Attendance & Tardiness

3.1 Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension or by leaving a message with the instructor's division office (Natural Science and Math 1 (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially **withdrawing**, may receive a failing grade.

3.2 Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being **withdrawn** from the course by the instructor, although the instructor is not required to **withdraw** students in that scenario. Repeated absences put students at risk of failing grades.

3.3. Tardiness – failure to be on time for class may result in loss of participation points and even quiz/exam points as additional time will not be given, nor will makeup quizzes be given for students who are tardy.

#### 4. Policy on Make-Up Tests

See syllabus, under Attendance for Instructor's policy on make-up exams/quizzes.

#### 5. Policy on Communication

5.1 The University provides a Chaminade email address for all students. Official Chaminade communications will be sent to the students' Chaminade email address and instructors will use only this email to communicate with students. It is the responsibility of the student to check their email frequently. Report email-related problems to the Helpdesk at 808-735-4855 or [helpdesk@chaminade.edu](mailto:helpdesk@chaminade.edu).

#### 6. Laboratory Safety Information

The following guidelines are established to provide instructions in maintaining safety for students, staff, and faculty while using any of the science laboratories at Chaminade University. The Division of Natural Sciences and Mathematics (NSM), along with the University Environmental Safety Office are responsible for enforcing the regulations set forth in the current Student Handbook. Queries should be addressed to: Dean of Natural Sciences and Mathematics (808) 440-4204; Environmental Safety Officer (808) 739-4811

#### 7. Title IX Declaration

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following:

- Chaminade Counseling Center| 808 735-4845.
- Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

#### 8. Academic Honesty

Students are expected to have read and to abide by the "Student Rules of Conduct" which are available in your copy of Chaminade University's Student Handbook. Cheating in the form of plagiarism, collusion, deception and will not be tolerated and will negatively affect your grade.

## Attendance and Grading

Attendance during all labs is **REQUIRED**. An excess of more than one (1) absence is unacceptable and will result in a non-passing grade in the course; make-up assignment for the first absence will be a one-page literature review of a peer-reviewed journal article (see below for information on this makeup assignment); however, you are still responsible for understanding the lab experiment you missed, as you will be tested on it. Make-up work is only worth 85% of missed lab points. Under exceptional circumstances, alternative assignments in addition to the lab write-up may be available with a written request accompanied by a written verification for the reason of the absences. Experimental results will be provided by the instructor and consists of the raw data only, which can be used to complete the results, questions, and discussion portions of your lab-write up. The objectives, materials, hazards, and procedure can be completed with the information found in the laboratory handouts.

Experiments will include a lab handout with pre-lab and post-lab questions. Pre-lab questions are due at the beginning of lab; post-lab questions and completed handouts including all calculations are due at the beginning of the next week's lab. As this is a college course, you are required to use a computer equipped with Word, Excel or other word processing/spreadsheet software as you will be asked to graph some of the lab data and write a brief lab summary describing the outcome of the experiment. This will also be due at the beginning of the following week's lab.

**Literature Review (Make-up Assignment):** Peer-reviewed journal articles are available in every scientific discipline and are an important venue for scientists to stay abreast of the latest research in the field. Scientists are able to publish their experimental results, which allows other scientists the opportunity to review and replicate experiments thereby strengthening hypotheses into scientific theories. For the literature review, select one chemistry-related journal article, read it and write a one-page review on what the article was about including the results of the study. The review must be properly cited and turned in with a copy of the journal article.

The course grade will be based on the following:

- 30% = Lab Handouts
- 20% = Laboratory Summaries/Graphs
- 20% = Lab Final
- 15% = Lab Quizzes
- 15% = Attendance and Attitude (following safety precautions, participation, etc.)

Grading Scale:

- Letter grade: A = 90 - 100%
- B = 80 - 89%
- C = 70 - 79%
- D = 60 - 69%
- F = 59% and below

**Tentative Lab Schedule and Important Dates**  
**(Subject to change; announcements will be made in lecture.)**

Week 1 (4/9)	Lab Safety, Measurements, Significant Figures and Conversions
Week 2 (4/16)	Density and Specific Gravity – Pennies Lab Report
Week 3 (4/23)	<b>Lab Quiz 1</b> Energy and Specific Heat
Week 4 (4/30)	Moles and Chemical Formulas; Mole Airlines
Week 5 (5/7)	Chemical Reactions and Equations; Compounds and Their Formulas
Week 6 (5/14)	<b>Lab Quiz 2</b> Reaction Rates and Equilibrium
Week 7 (5/21)	Gas Laws
Week 8 (5/28)	Precipitation Reaction
Week 9 (6/04)	Acid-Base Titration
Week 10 (6/11)	<b>Lab Final</b>