Chem 100 Chemistry in Society (ONLINE)
3 credits (CRN 60066)

INSTRUCTOR: Dr. Leticia ‘Letty’ Colmenares
OFFICE: Imiloa 116
OFFICE HOURS: By appointment
TELEPHONE: 236-9120
EMAIL: Leticia@hawaii.edu
EFFECTIVE DATE: Spring Term 2019

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai‘i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko‘olau region of O‘ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

Chemistry 100 provides a survey of basic concepts and applications of chemistry in the real world. This course is suitable for students who had little or no background in chemistry and serves to fulfill a general education physical science core course for the non-science major or as a preparatory course for Chem 151.

Chem 100L (1-credit) laboratory course is not available this semester.

REQUIRED ACTIVITIES

On average, you should spend at least 8 hours per week to study for this course.

- At least 2-3 hours per week reading the Lecture Notes, PowerPoints and videos, and taking down your own notes
- At least 2-3 hours per week doing learning checks and self-assessment in the Notes.
- At least 2 hours per week completing assignment and quiz
- Half-hour attending Zoom session with instructor and/or Tutor.com
- One hour or less on each discussion posting
- 2-3 weeks writing your research paper
- 1.5 to 2 hours to take each of the 2 midterm exams and final exam at the Testing Center.

STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:
1. Describe the relationship between properties and structure of matter.
2. Name chemicals, balance chemical and nuclear equations.
4. Identify the types of chemical reactions (i.e. acid-base, redox, nuclear) and their applications in everyday lives.
5. Explain the chemistry of household chemicals, and the composition of air and water.
6. Relate a specific chemical concept to a current environmental, health, industrial, or technological issue by writing a short research paper.

**COURSE TASKS**

- Study **weekly** course materials (Lecture Notes, PowerPoint and Videos)
- Complete weekly assignment **every Sunday**
- Complete weekly quiz **every Sunday**
- Discussion postings due 1/20, 2/10, 3/10, 3/31
- Two Midterm Exams (*Testing Center*) due on 2/15, 4/5
- Research Paper (*Turnitin.com*) topic due on 4/7, final paper due on 5/5
- Cumulative Final Exam (*Testing Center*) due on 5/10

**ASSESSMENT TASKS AND GRADING**

Grades will be based on the following:

<table>
<thead>
<tr>
<th>Task</th>
<th>Points</th>
<th>Type</th>
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<tbody>
<tr>
<td>Syllabus Quiz</td>
<td>10</td>
<td>online</td>
</tr>
<tr>
<td>Weekly Assignments (10 best out of 12)</td>
<td>100</td>
<td>online</td>
</tr>
<tr>
<td>Weekly Quizzes (10 best out of 12)</td>
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<td>online</td>
</tr>
<tr>
<td>Individual Discussion Posts (4)</td>
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<td>online</td>
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<td>Research Paper (1)</td>
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<td>Midterm Exams (2)</td>
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<td>(<em>Testing Center</em>)</td>
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<tr>
<td>Final Exam</td>
<td>120</td>
<td>(<em>Testing Center</em>)</td>
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<tr>
<td>Total</td>
<td>650</td>
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**IMPORTANT:** The two midterm and final exams will be proctored at the WCC Testing Center. You may use other testing centers found in this link: [http://www.hawaii.edu/dl/testcenters](http://www.hawaii.edu/dl/testcenters) or if you are in the US mainland, you may use other testing centers in your locality. If you wish to take these exams at other locations, please email the instructor by the second week of classes for pre-approval.

Course grades will be based on your total points, assigned as follows:

585-650 total points = **A**
520-584 total points = **B**
455-519 total points = **C**
390-454 total points = **D**
below 390 = **F**

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Curving might be employed if deemed necessary.

If you drop out from the course without any notice, you will be assigned with an ‘F’ grade. To avoid this, you need to withdraw officially (through MyUH) by March 25, 2019.

The other grades I, W, CR, NC and N are described at https://windward.hawaii.edu/academic_affairs/Grades.php. These options must be discussed with the professor. Students requesting for N grade must provide a formal letter of request before the final examination with supporting evidences.

The deadline to change from A-F to CR/NC/audit option (with Office of Admissions & Records) is on March 25, 2019.

LEARNING RESOURCES

1. Required: Lecture Notes and PowerPoints downloadable from course website
2. Optional text: Chemistry in Changing Times by Hill and Kolb, 12th or later edition-(buy used copy @amazon.com or borrow from Reserved section, WCC Library)
3. Required: Calculator (cell-phone calculator not allowed in proctored exams)
4. Required: Periodic Table of Elements (will be provided in test center)
5. Course website https://windwardcc.instructure.com/
6. Online office hours (Zoom) by appointment.
7. Paper anti-plagiarism and feedback tool Http://Turnitin.com
8. Tutor.com, online tutoring open 24/7 https://windward.hawaii.edu/tutor.com/

ADDITIONAL INFORMATION

1. You are expected to login the course website at least every other day. The website is your classroom and not coming to the site is like skipping class. You are expected to spend at least eight hours a week for this course. Please schedule real-time hours that you will routinely follow. An example: MWFS 7-9 pm (8 hrs total). Tips on how to manage your time is found at: http://www.developgoodhabits.com/study-schedule/

2. All the topics and materials for each week are found on the front page of the course website. Download and study the Lecture Notes and PowerPoint for the week. Focus on the objectives of each module. You are expected to do ALL the Learning Checks and Self-Assessment in each module. In addition to the Notes, study the multimedia materials such as videos, animations, Quicktime movies and interactive websites. All the links are found in the course website.

3. You are expected to MEET ALL DEADLINES in the Course Schedule (see last page). This course is NOT self-paced.

4. Have a notebook. Take your own notes when reading the Lecture Notes, when watching videos, tutorials, and animations. If you don’t write your own notes, you will not accurately recall the information when you reach the final exam.
5. The syllabus quiz (10 points) is mandatory. Please do this as soon as possible. It is very important that you become familiar with the course tasks, assessments, resources and grading.

6. Weekly assignment (10 points). After studying the module materials, please complete the module assignment. You are allowed 3 attempts with no time limit but before the due date. The highest of the 3 scores is recorded in the Gradebook.

7. Weekly quiz (10 points). Take the actual quiz after completing the assignment. Only one attempt is allowed with time limit. The quiz will be timed (10-20 min depending on the questions). The quiz will automatically close when the time limit is reached. If you step away while taking the quiz, you will be timed out and cannot retake the quiz. Always have a calculator and a periodic chart ready before you begin the quiz. You are allowed to use a cheat sheet. You may NOT open your Lecture Notes or textbook. The reason why the quiz is timed is to prevent cheating. After taking the quiz, check your score in the gradebook. After the quiz is closed, click ‘Review’.

Make sure that your Internet connection is a robust connection when taking online quizzes. Please do NOT take your quiz at the coffee shop or using wireless connection.

8. Discussion Posts. Four discussion postings (individual) will be required, 10 points @) to be posted in Discussion.
   - #1- Introduce yourself (due 1/13)
   - #2- Ask Questions before midterm exam (due 2/10)
   - #3 -Chemistry in the news (due 3/10)
   - #4- Application of a chemical reaction in everyday life (due 3/31)

Each discussion has its own description and grading criteria. Read the instructions carefully and thoroughly before posting. Student interactions are required for #2, #3 and #4. Please be respectful to everyone at all times. Please remember when online to follow netiquette rules. Avoid flaming: http://www.albion.com/netiquette/corerules.html

9. Midterm and Final Exams. Each midterm exam will cover approximately 40% of the material of the course. The final exam will be cumulative covering ALL topics taken throughout the semester. The two midterm and final exams will be made available for 3 days at the WCC Testing Center (TTC) or external testing site. Please get approval of your testing site from the instructor as soon as possible. Check the course schedule for the dates.

Important. A picture ID is required and no cell phones will be allowed. The midterm and final exams are closed books and notes (no cheat sheet). You need to bring your own calculator to the testing center. The proctored exams will be timed, 75 min for midterm and 2hrs for the final. The proctor at the testing site will input the password for the midterm and provide you with a periodic table.

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Hours of operation may vary from campus to campus. At the WCC Testing Center, the hours are found in this link: [http://windward.hawaii.edu/Testing_Center/index.php](http://windward.hawaii.edu/Testing_Center/index.php)

After taking the exam, you must not tell anybody what is in the test, as this would fall under the guidelines of academic integrity. Any evidence of cheating will result in a score of zero for all parties involved, and this will be reported to the Vice Chancellor for disciplinary action.

10. **Research.** The research paper is a three-page (double space) paper of at least 750 words to make a connection between a chemistry concept and an application/issue in everyday life. This will be made based on textbook readings and online resources. A sample paper and a handout “tips on how to search for references” will be provided.

Research paper topics need to be pre-approved. A description of the paper topic in 3-4 sentences with at least 5 reliable references is due on **April 7, 2019** (submit in Turnitin.com). Topics like the Kreb’s cycle, Glycolysis, or Prebiotics, etc, (textbook topics in nutrition, biology and zoology, etc courses) and topics already tackled in extra credit, such as antacids and airbags, and in sample paper are **NOT acceptable.**

‘**Topic with references’, ‘Draft’ and ‘Final research paper**’ must be submitted at http: turnitin.com. This is free of charge and this helps prevent plagiarism. If this is your first time using this website, please create an account and register. Course ID: **19994933** and Password: **Colmenares**

Instructor will give feedback if paper was submitted **one week before due date (April 29, 2019).** Paper may be revised and resubmitted on the deadline (**May 5, 2019**). The paper grade will be based on the following rubrics:

- contains a title and purpose/thesis statement (5 points)
- discusses at least one issue and effectively connects to concepts learned in class (10 points)
- information is well-organized and coherent (10 points)
- has in-depth discussion and has correct length (at least 750 words) (10 points)
- no errors in spelling, grammar and use of English (5 points)
- cites all data/information obtained from other sources (5 points)
- lists at least 5 reliable sources, with at least 2 peer-reviewed articles (5 points)

11. **Extra Credit Policy.** You can earn extra credit up to a **maximum of 20 points.**

- Meeting with instructor (by appointment) is 1 point extra credit.
- Scoring 80% or higher in the practice midterm and practice final will earn 3 points @ with unlimited attempts.
- Tutoring at Tutor.com is 0.5 point extra credit per session. Please send proof.
- Extra credit topics: Redi’s hypothesis, DHMO, Airbags, Antacids, in the Lecture Notes is 2 points each.

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12. Communicating with instructor. If you have questions, please email the professor using the Email tool in Canvas. Please check your hawaii.edu email account for her response. Please ALLOW 24 HOURS for responses to emails or messages. You may also call her at 808-236-9120. Please email to make an appointment for online (Zoom) or face-to-face consultation.

13. LATE POLICY. Submission of assignments, quizzes and discussion postings are allowed up to 7 days after the due date. However, 1 point per day after the due date is deducted from the score. Late research paper is not accepted.

14. MISSED EXAMS. Only one missed midterm exam can be made up, if you notify the instructor in advance or on the day of the exam with documentation, such as, signed doctor’s note, police report or obituary notice). There will be no make-up for the final exam.

15. Keep a copy of all your submissions.

DISABILITIES ACCOMMODATIONS

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Ākoakoa 213 for more information.

TITLE IX

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, WCC has resources to support you. To speak with someone confidentially, contact the Mental Health & Wellness Office at 808-235- 7393 or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator, Karla K. Silva-Park, at 808-235-7468 or karlas@hawaii.edu.

ACADEMIC INTEGRITY

Work submitted by a student must be the student’s own work. Trying to present another person’s work as your own is cheating. Cheating on any exam/quiz/assignment and other acts of misconduct such as soliciting or leaking what’s on the exam are academically dishonest and will be dealt with severely. Copying someone else’s work from the internet, book, or publication
without giving reference to the original author is plagiarism. Students who commit academic dishonesty or cheating will receive a failing grade on the assignment or exam. All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

**ALTERNATE CONTACT INFORMATION**

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:
Location: Alakai 121, Phone: 808-235-7422, Email: wccaa@hawaii.edu

**COURSE SCHEDULE**

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Due Dates 11:55 PM*</th>
<th>Notes</th>
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<td>1</td>
<td>Orientation &amp; Chemistry</td>
<td>Module#1 Notes Multimedia</td>
<td>Jan 13 Syllabus Quiz, Assign#1 Module 1, Quiz #1-Module 1</td>
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<td>Module 2 Notes Multimedia</td>
<td>Jan 20 Assign#2 Module 2, Quiz #2-Module 2, Discussion #1-Introduce</td>
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<td>Chemical Bonding</td>
<td>Module 3 Notes Multimedia</td>
<td>Jan 27 Assign#3 Module 3, Quiz #3-Chap 4</td>
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<td>Chemical Accounting I</td>
<td>Module 4 Notes Multimedia</td>
<td>Feb 3 Assign#4 Module 4, Quiz #4-Chap 5a</td>
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<td>4</td>
<td>Chemical Accounting II</td>
<td>Module 5 Notes Multimedia</td>
<td>Feb 10 Assign#5 Module 5, Quiz #5-Chap 5b, Discussion #2-Ask a Question</td>
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<td>Modules 1-5 Midterm Exam</td>
<td>Feb 13-15 Midterm 1 Modules 1-5, The Testing Center</td>
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<td>Gases, Liquids, Solids</td>
<td>Module 6 Notes Multimedia</td>
<td>Feb 24 Assign#6 Module 6, Quiz #6-Module 6</td>
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<td>Acids &amp; Bases</td>
<td>Module 7 Notes Multimedia</td>
<td>Mar 3 Assign#7 Module 7, Quiz #7-Module 7</td>
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<td>Oxidation &amp; Reduction</td>
<td>Module 8 Notes Multimedia</td>
<td>Mar 10 Assign#8 Module 8, Quiz #8-Module 8, Discussion #3-News</td>
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<td>Module</td>
<td>Topic</td>
<td>Notes</td>
<td>Dates</td>
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<td>Organic Chemistry &amp; Polymers</td>
<td>Module 9 Notes</td>
<td>Mar 17&lt;br&gt;&lt;br&gt;&lt;i&gt;Assign#9 Module 9&lt;/i&gt; &lt;br&gt;&lt;br&gt;&lt;i&gt;Quiz #9 Module 9&lt;/i&gt;</td>
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<td>Nuclear Chemistry</td>
<td>Module 10 Notes</td>
<td>Mar 24/Mar 31 &lt;br&gt;&lt;br&gt;&lt;i&gt;Assign#10 Module 10&lt;/i&gt; &lt;br&gt;&lt;br&gt;&lt;i&gt;Quiz #10-Module 10&lt;/i&gt; &lt;br&gt;&lt;br&gt;&lt;i&gt;Discussion #4-Everday&lt;/i&gt;</td>
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<td>Air &amp; Water</td>
<td>Module 11 Notes</td>
<td>Apr 14&lt;br&gt;&lt;br&gt;&lt;i&gt;Assign#11 Module 11&lt;/i&gt; &lt;br&gt;&lt;br&gt;&lt;i&gt;Quiz#11-Module 11&lt;/i&gt;</td>
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<td>Household Chemicals</td>
<td>Module 12 Notes</td>
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<td>Multimedia in Modules</td>
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<td>15</td>
<td>Research Paper</td>
<td>Write research paper</td>
<td>Apr 28&lt;br&gt;&lt;br&gt;&lt;i&gt;Draft Research Paper&lt;/i&gt;</td>
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<td>Review all modules</td>
<td>May 5&lt;br&gt;&lt;br&gt;&lt;i&gt;Final Research Paper&lt;/i&gt;</td>
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<td>Cumulative Final Exam</td>
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<td>May 6-10&lt;br&gt;&lt;br&gt;&lt;i&gt;All modules (1-12)&lt;/i&gt; &lt;br&gt;&lt;br&gt;&lt;i&gt;Final Exam Testing Center&lt;/i&gt;</td>
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*This syllabus is subject to change. Please bring any error to the attention of the instructor.*