Instructor: Chamari Walliwalagedara, PhD

Email: chamari.w@dcccd.edu

**Course Information:**

Credit Hours: 4  
Lecture Time: Tuesday & Thursday 08.00 AM - 10.50 AM    Room: A743  
Lab Time: Tuesday & Thursday 08.00 AM - 10.50 AM    Room: A721

**Course Prerequisites**
DMAT 0305  
College level ready in Reading

**Course Description**
This course is for non-science majors. Fundamental concepts are presented in lecture and laboratory including the periodic table, atomic structure, chemical bonding, reactions, stoichiometry, states of matter, properties of metals, nonmetals and compounds, chemical nomenclature, acid-base theory, oxidation-reduction and solutions. Descriptive chemistry is emphasized. (3 Lec., 3 Lab.)

**Coordinating Board Approval Number 4005015103**

**Statement of Purpose and Core Objectives**

**Statement of Purpose**
Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.
Core Objectives
This course supports, develops, and assesses the following Core Objectives:

Chemistry 1405 develops the following Core Objectives:

Critical Thinking - to include creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.
Communication - to include effective development, interpretation, and expression of idea through written, oral, and visual communication.
Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Student Learning Outcomes
(If you have specific outcomes for your course. The THECB does not have outcomes for 1405)

Required Course Materials


Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Grading Policy & Scale:

Lecture: Three (3) mid-term Exams (3 x100) points), and one (1) comprehensive final exam worth 200 points

Laboratory: 10 lab reports (200 points), Formal Lab Report (50 points) and Lab Test (50 points)

Home Work Assignment: 150 points

>80% Attendance: 50 points
Final grades will be assigned as follows:

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

Course Activities
(Lecture/lab calendar)

<table>
<thead>
<tr>
<th>WEEK</th>
<th>#</th>
<th>ASSIGNMENTS</th>
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<tbody>
<tr>
<td>Aug 26</td>
<td>1</td>
<td>Complete the Course Orientation. Read the course Syllabus &amp; Introduction Chapter 1: Chemistry in our lives Laboratory Safety (Video &amp; Quiz) Mandatory</td>
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<tr>
<td>Sep 02</td>
<td>2</td>
<td>Chapter 2: Chemistry and Measurements Introduction of Laboratory Equipment &amp; Glassware Lab 1: Chemistry &amp; Measurement Lab Quiz on Lab Equipment &amp; Glassware</td>
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<tr>
<td>Sep 09</td>
<td>3</td>
<td>Chapter 3: Matter and Energy Chapter Lab 2: Conversion Factors &amp; Problem Solving</td>
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<td>Sep 16</td>
<td>4</td>
<td>Chapter 4: Atoms and Elements Lab 3: Density &amp; Specific Gravity Test 1 (Ch. 1 - 4) Review</td>
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<td>Sep 23</td>
<td>5</td>
<td>Test 1 (Ch. 1-4) Testing Center Chapter 6: Ionic &amp; molecular Compounds Lab 4: Temperature &amp; Specific Heat</td>
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<td>Sep 30</td>
<td>6</td>
<td>Chapter 7: Chemical Quantities and Reactions Lab 5: Energy &amp; Matter</td>
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<td>Oct 07</td>
<td>7</td>
<td>Chapter 7: Chemical Quantities and Reactions Contd;</td>
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<tr>
<td>Date</td>
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<td>Topic</td>
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| Oct 14     | 8    | Chapter 8: Gases
              Lab 7: Electron Configuration & Periodic Table                  |
| Oct 21     | 9    | Lab 9: Compounds & their Bonds
              Test 2 (Ch. 6-8) Review                                         |
| Oct 28     | 10   | Test 2 (Ch. 6-8)
              Lab 10: Chemical Reactions & Equations                          |
| Nov 04     | 11   | Chapter 9: Solutions
              Lab 11: Moles & Chemical Formulas                              |
| Nov 11     | 12   | Chapter 09: Contd:
              Nov 14: Last Day to Withdraw the class                          |
| Nov 18     | 13   | Chapter 11: Acids and Bases
              Test 3 (Ch. 9 & 11) Review                                     |
| Nov 25     | 14   | Test 3 (Ch. 9 & 11)
              Nov 28 (TR) Thanksgiving Holiday - No Class                  |
| Dec 02     | 15   | Final Exam Review                                                    |
| Dec 09     | 16   | Comprehensive Final Exam (In Class)                                  |

**Institutional Policies**

Institutional Policies relating to this course can be accessed using the following link: [Institutional Policies](http://www.elcentrocollege.edu/syllabipolicies).