

**Texas State Technical College Waco  
Course Syllabus**

*Course Rubric & Number:* CTEC 1205

*Lecture/Lab Hours:* 0- 8

*CIP Code:* 41.0301

*Course Title:* **Chemical Calculations I**

***Course Description:*** Parallels and supports Applied General Chemistry I or equivalent. Emphasis on solving chemistry problems using mathematics.

*Prerequisites:*

*Instructor:*

*Office Phone Number:* 254-867-4859

*Email Address:* richard.wheet@tstc.edu

*Office Fax Number:* 254-867-2973

*Building & Office Room Number:* TSC - Office

*Department Chair:*

Kirk Hunter



*Date:* 29 June 2010

*Approved by CIP Committee:*

*Date:* \_\_\_\_\_

**End-of-Course Learning Outcomes:**

CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.

**Resources:**

Tools & Materials Students Purchase

Quantity	Item Description
1	Introductory Chemistry – Corwin – Prentice Hall – latest edition

**TSTC Grading Policy:**

(Grades for all Major courses must be C or better)

Grade	Percent	Description	Grade Points
A	90-100	Excellent/Superior Performance Level	4
B	80-89	Above Required Performance Level	3
C	70-79	Minimum Required Performance Level	2
D	60-69	Below Required Performance Level	1
F	Below 60	Failure to meet Performance Requirements	0
IP	--	In Progress	
W	--	Withdrawal	0
CR	--	Credit	0
AUD	--	Audit of Course	0
See College Catalog for complete descriptions.			

**Instructor's Participation Policy:**

The student must be present for all tests, quizzes, and assignments. Failure to attend will result in a grade of zero for that particular test, quiz, laboratory or assignment.

**Students with Disabilities:**

If you have a documented disability that will impact your work in this class, please contact the Office of Deaf and Disabled Student Services (D/DSS) so that appropriate arrangements for your accommodations can be made. In accordance with the federal law, a student requesting accommodations must provide documentation of his/her disability to D/DSS. For information, visit D/DSS in the Fentress Center or call (254) 867-3600.

Once you and a D/DSS representative have signed a Letter of Special Accommodations, take the accommodations letter to each class for which an accommodation has been determined. Meet individually with each class instructor to discuss accommodations letter. Have the instructor sign and keep a copy of the letter. Take the original letter, signed by the instructor, back to D/DSS so they are aware that the instructor has been officially informed of the need for accommodations.

**Course Assessments & Grading Scheme:**

<i>Assessments</i>		<i>% of Final Grade</i>
Test 1: Introduction to Chemistry and Standards of Measurements	100 points	10 %
Test 2: Standards of Measurements	100 points	10 %
Test 3: Properties of Matter	100 points	10 %
Test 4: Atomic Theory, Structure, and the Periodic Table	100 points	10 %
Test 5: Chemical Bonds and Formula Writing	100 points	10 %
Test 6: Nomenclature	100 points	10 %
Test 7: Mass Relationships	100 points	10 %
Test 8: Stoichiometry	100 points	10 %
Test 9: Gas Laws	100 points	10 %
Test 10: Solutions	100 points	10 %
Final Course Grade		100%

A = 90-100%

B=80-89%

C=70-79%

D=60-69%

**Description of Graded Elements of the Course:**

<i>End-of-Course Learning Outcomes</i>	<i>Assessment Measure(s)</i>	<i>Submittal of Assessment</i>	<i>Grading Criteria</i>	<i>% of Final Grade</i>
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 1	Written using a writing instrument	Correct answers based on scientific fact	10%

<b><i>End-of-Course Learning Outcomes</i></b>	<b><i>Assessment Measure(s)</i></b>	<b><i>Submittal of Assessment</i></b>	<b><i>Grading Criteria</i></b>	<b><i>% of Final Grade</i></b>
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 2	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 3	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 4	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 5	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 6	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 7	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 8	Written using a writing instrument	Correct answers based on scientific fact	10%

<i>End-of-Course Learning Outcomes</i>	<i>Assessment Measure(s)</i>	<i>Submittal of Assessment</i>	<i>Grading Criteria</i>	<i>% of Final Grade</i>
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 9	Written using a writing instrument	Correct answers based on scientific fact	10%
CO1: Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 10	Written using a writing instrument	Correct answers based on scientific fact	10%

***Course Policies:***

***Late Work:***

Late work receives a zero.

***Electronic Communication Devices:***

All cell phones, pagers, computers and other electrical communication devices will be turned off completely during class (this includes no vibrate mode). Failure to comply with this requirement will result in the student being required to leave the class for the rest of the class period during which the violation occurs. Any work missed may not be made up.

Make-up work receives a zero

***Course Schedule:***

Week # 1: Review course syllabus and standards of measurements.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.		

Week # 2: Standards of measurements.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 1:	Introduction to Chemistry and Standards of Measurements
Week # 3: Standards of measurements.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 2:	Standards of Measurements
Week # 4: Properties of Matter.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.		
Week # 5: Properties of Matter		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 3:	Properties of Matter
Week # 6: Atomic Theory, Structure, and the Periodic Table.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 4	Atomic Theory, Structure, and the Periodic Table
Week # 7: Chemical Bonds and Formula Writing		

Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 5:	Chemical Bonds and Formula Writing
Week # 8: Nomenclature		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 6:	Nomenclature
Week # 9: Mass Relationships.		
Week # 10: Mass Relationships		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 7:	Mass Relationships
Week # 11: Stoichiometry		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 8:	Stoichiometry
Week # 12: Gas Laws		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 9:	Gas Laws
Week # 13: Solutions		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.		

Week # 14: Solutions.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test 10:	Solutions
Week # 15: Retake week.		
Solve mathematical problems related to Applied General Chemistry I or equivalent and demonstrate problem-solving strategies.	Test Retake:	Any single previous test

***Modification of the syllabus:***

This syllabus is intended as a tentative set of guidelines for this course and is not a contract. At any time during the semester, the instructor reserves the right to make modifications in content, schedules and requirements as deemed necessary to promote the best education possible within the prevailing conditions and circumstances affecting this course.