Introductory Chemistry I Syllabus
Dallas College Brookhaven Campus

Contacting your instructor
Instructors typically respond to emails from students with 24 hours. However, over the weekend and holiday periods, responses maybe delayed. Find out more about contacting your instructor.

Instructor Contact Information
Name: Mrs. Robyn Johnson
Email: robynj@dcccd.edu
Office phone: Not applicable
Office location: Not applicable
Virtual Office Hours: Tuesday and Thursday 12:00-1:00 pm
(click on Virtual Office Hours menu button to access)
Division Office and Phone: K224, 972-860-4549

Course Information
Course Title: Introductory Chemistry I
Course Number: CHEM 1405
Section Number: 21005
Semester/Year: Fall 2020
Credit Hours: 4
Class Meeting Time/Location: Online
Certification Date: 09/05/2020
Last Day to Withdraw: 11/12/2020

Course Prerequisites
None.
Course Description
This is a Texas Common Course Number. This is a Dallas College Core Curriculum course.
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 Academic Approval Number 4005015103

Student Learning Outcomes

Upon successful completion of this Introductory Chemistry course, students will:

1. Convert units of measurement and demonstrate dimensional analysis skills.
2. Classify matter according to its state and composition.
3. Determine the role of energy in physical and chemical changes.
4. Write chemical formulas and use the rules of nomenclature to name chemical compounds.
5. Write and balance chemical equations. Define the types and characteristics of different chemical reactions.
7. Determine the basic nuclear and electronic structure of atoms.
8. Identify trends in chemical and physical properties of the elements using the Periodic Table.
9. Describe the bonding in, and the shape of, simple molecules and ions.
10. Use the Gas Laws and basics of the Kinetic Molecular Theory to solve gas problems.
11. Determine the concentration of aqueous solutions.
12. Identify the characteristics of acids and bases, and solve problems based on their quantitative relationships.

Texas Core Objectives

The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

1. Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills** - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication

3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

5. **Personal Responsibility** - to include the ability to connect choices, actions, and consequences to ethical decision-making

6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

**Required Course Materials**

If your Dallas College course requires learning materials, they will be provided as part of the IncludED program (dcccd.edu/included) or as free materials you can access in your online course shell.

If you opt out of the IncludED program, you are responsible for obtaining all your required learning materials by the first day of the class. For more details, see Institutional Policies.

**Required Materials (provided as part of IncludED program)**

1. **Introductory Chemistry Essentials, 6th edition.**
   Author: Nivaldo J. Tro; ISBN: 9780134291802; Copyright: 2018; Publisher: Pearson

2. **Access Code for Sapling Single Course HW Intro Chem.**

If you have questions regarding IncludED, contact Student Questions@dcccd.edu.

**Additional Required Supplies (not part of IncludED)**

1. Scientific calculator: non-programmable, non-graphing (TI 30X IIS recommended) - *Programmable calculators with alpha keys, graphing calculators, or cell phone calculators will not be allowed on any tests or final exam.*
2. 3-ring binders (recommended for lecture notes and lab materials)
3. Elmer’s school glue, 4 oz (for Slime Lab)
4. Borax laundry detergent booster (for Slime Lab)
Optional Recommended Texts (not required)


Using eCampus and DCCCD Email

Class materials are accessed via [eCampus](http://ecampus.dcccd.edu/). Click on “Access My Courses Now.” If you have issues logging in, contact technical support or call 1-866-374-7169 or 972-669-6402. Once inside eCampus, you should see several tabs at the top. The “Courses” tab gives you access to the lecture materials for this class (2020FA-CHEM-1405-21005). The “Community” tab gives you access to the lab materials (BHC-CHEM-1405-LAB).

It is recommended that you use a dcccd email address for school business. Please use your dcccd email to contact your instructor. Information on student email and Microsoft Office (https://www.dcccd.edu/services/onlineservices/email-ms-office/pages/default.aspx) can be found on eCampus. You need to verify that your email address is correct in the system. To check, go to eConnect and choose Credit Students at the top of the screen. Scroll down to “My Personal Information” and choose “Change email address.”

Online CHEM 1405 Course

CHEM 1405 lecture and lab are online. The course is broken down into chapters which correspond to the chapters in the Tro Introductory Chemistry Essentials textbook. The pace of the course involves covering one chapter per week. For each chapter you should complete the following:

**Weekly responsibilities:**

- Read the chapter in the textbook
- Read/print the PowerPoint slides and watch the lecture videos
- Refer to any handouts for the salient points in the chapter
- Watch any additional short videos provided to review and reinforce skills
- Complete the assignments in the Practice folder; check your answers against the keys
- Work as many end-of-chapter questions as possible (answers to the odd questions are at the back of the book)
- Complete Sapling Learning online homework
- Complete the required lab activity for the week
- Complete additional Worksheets/Assignments by due date
Graded Work
Lecture: 80% of final grade  Lab: 20% of final grade

The tables below provide a summary of the graded work in this course and an explanation of how your final course grade will be calculated.

Summary of Graded Work

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worksheets</td>
<td>2 @ 60 points each</td>
<td>120 points</td>
</tr>
<tr>
<td>Sapling homework assignments</td>
<td>1 @ 5 points, 13 @ 15 points each</td>
<td>200 points</td>
</tr>
<tr>
<td>Tests</td>
<td>3 @ 120 points each</td>
<td>360 points</td>
</tr>
<tr>
<td>Significant Figures Assignment</td>
<td>1 @ 20 points</td>
<td>20 points</td>
</tr>
<tr>
<td>Lab safety quiz</td>
<td>1 @ 20 points</td>
<td>20 points</td>
</tr>
<tr>
<td>Lab reports</td>
<td>12 @ 15 points</td>
<td>180 points</td>
</tr>
<tr>
<td>Final exam</td>
<td>1 @ 100 points</td>
<td>100 points</td>
</tr>
</tbody>
</table>

TOTAL: 1000 points

Final Grade

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentages</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>895-1000</td>
<td>89.5-100%</td>
<td>A</td>
</tr>
<tr>
<td>795-894</td>
<td>79.5-89.4%</td>
<td>B</td>
</tr>
<tr>
<td>695-794</td>
<td>69.5-79.4%</td>
<td>C</td>
</tr>
<tr>
<td>595-694</td>
<td>59.5-69.4%</td>
<td>D</td>
</tr>
<tr>
<td>0-594</td>
<td>0-59.4%</td>
<td>F</td>
</tr>
</tbody>
</table>

Description of Graded Work

Worksheets: There are two required worksheets. These can be accessed through the Worksheets menu button on the left-hand eCampus menu. Worksheets will be available during the times indicated on the Lecture Schedule (found in eCampus under the Online course info menu button.) You may use all notes for the worksheets, but please work alone.
Sapling homework: Assignments are electronic and are accessed via Sapling Learning.

- Sapling Learning materials may be found under the Sapling Learning menu button on the left-hand eCampus menu. There is also a link to each chapter assignment within the individual chapter folders (which are accessed through the Chapter folders menu button.)
- Access to Sapling Learning is included in your tuition unless you opted out of the IncludED program. You must register for your Sapling account through eCampus. The link to register is located both under the Sapling Learning menu button and within the Chapter 1 folder.
- The first assignment in Chapter 1 is a practice assignment worth 5 points.
- There are 13 other assignments worth 15 points each. You may attempt questions up to four times, but there is a 10% deduction for each additional attempt. You may use notes for the Sapling homework, but please work alone.
- There are also optional activities, videos, and online “labs” available for some chapters to help you understand the concepts.

Tests and Final Exam: Tests will cover the material presented in the PowerPoint presentations. The Final Exam is cumulative.

- Test dates and the chapters covered are on the Lecture Schedule. Tests may include short answer questions, problems, and multiple-choice questions.
- The Final Exam will be cumulative and will be multiple choice.
- Tests and the Final Exam can be accessed through the Tests menu button on the left-hand eCampus menu.
- Students are expected to demonstrate honesty and integrity in completing the tests and exam.
- You are expected to complete tests and the exam individually without the assistance from another person.
- You may use scratch paper, a non-programmable scientific calculator, the Brookhaven Periodic Table, and the Conversions Sheet/Solubility Rules document. You may refer to your notes. You may not refer to the internet, textbook, phone, dictionaries, translators, etc. during the tests or exam.
- Tests and the Final Exam will be timed.

Labs: Labs are an important part of the chemistry experience; they help you connect theory discussed in lecture with real-world experiences. Participation in the lab portion of the course is mandatory. This semester, with the exception of the Slime Lab, you will not actually be performing "wet labs." Instead, you will complete “dry labs," digital simulations, or study assignments.
• Lab information can be accessed through the eCampus Lab Community called BHC-CHEM-1405-LAB. The Community tab is found at the top of the eCampus screen. Once in the Lab Community, the labs are found under the FA2020 menu button. Each experiment has a folder with all the necessary information.
• Details for lab work and submitting lab reports can be found on eCampus under the Online course info menu button in the document "Online Chemistry Laboratory Information."
• Due dates can be found in the Lab Schedule found in eCampus under the Online course info menu button. Plan to complete approximately one lab per week.
• The Safety Quiz must be completed by the end of the first week of class. You must obtain a score of at least 70% to continue in the course.

**Significant Figures Assignment:** This is an assignment found in the Lab Community. You may complete it as many times as you like up until the due date.

**Bonus Mini Quizzes:** Short timed mini-quizzes will be available for ten of the chapters.

- These quizzes are found within the chapter folders and have limited availability. You may use your notes.
- You will receive bonus points for correct answers, up to 3 points possible per quiz. These points will add in to your point total for the course.
- If you choose not to take the quiz, a grade of 0 will be recorded, but it does not hurt your overall point total as these points are in addition to the required 1000 points.

**Attendance and Your Final Grade**

Because no classes will meet face-to-face this semester, there is no attendance requirement. Your grade will be determined by the points obtained on required assignments.

**Lab Grade Policy**

After labs are graded in the Lab Community, the score will be transferred to the Course gradebook.

**IMPORTANT:** Since you will receive a single transcripted grade for both lecture and lab, you must earn an overall grade of 70% for the lab portion of this course in order to pass the class. Failure to complete and submit a lab will result in a grade of zero (0) for that lab and could jeopardize your chances of passing the lecture portion of the class.
**Late Work Policy**

There will be no make-up tests, no early/late tests, no re-takes on tests, and no grades will be dropped. There will be no extensions for online homework, worksheets, or lab reports. Special circumstances will be handled on an individual basis. If you have extenuating circumstances that affect your ability to complete an assignment on time, you must notify the instructor as soon as possible. The circumstances will be evaluated and a determination will be made as to whether you will be allowed additional time. Extenuating circumstances will generally be limited to illness. If you have an extended illness that prevents you from completing work on time, documentation from a physician will be required.

You will automatically receive a grade of zero (0) for any test that is missed unless you notify the instructor in writing by email (robynj@dcccd.edu) as to the reason you are unable to take the test at the scheduled time. At the instructor's discretion, you may be provided with the opportunity to take a test for partial credit at a time designated by the instructor.

**Academic Dishonesty**

Academic honesty is expected, and integrity is valued in Dallas College. Scholastic dishonesty is a violation of the Code of Student Conduct and Hazing and includes, but is not limited to, cheating on a test, plagiarism, and collusion. If you are caught cheating or aiding cheating, you may be suspended, receive a "0" for the assignment in question and/or receive a grade of "F" for the overall course, at the instructor's discretion.

*Examples of cheating:*
- Using notes or other aids on a test or exam when not authorized
- Working with another person on a test or exam
- Telling another student what was on a test or exam
- Duplicating test questions for another student
- Copying another student’s information on a lab report
- Plagiarizing anything

**Institutional Policies**

Institutional Policies include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.
## Course Schedule: Lecture

See detailed Lecture Schedule with all due dates on eCampus

<table>
<thead>
<tr>
<th>Topics</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch.1 “The Chemical World”</td>
<td>Sapling HW practice</td>
</tr>
<tr>
<td></td>
<td>Student Information Sheet</td>
</tr>
<tr>
<td>Ch. 2 “Measurement and Problem Solving”</td>
<td>Sapling HW 2</td>
</tr>
<tr>
<td>Ch. 3 “Matter and Energy”</td>
<td>Sapling HW 3</td>
</tr>
<tr>
<td>Ch. 4 “Atoms and Elements”</td>
<td>Sapling HW 4</td>
</tr>
<tr>
<td>Ch. 5 “Molecules and Compounds”</td>
<td>Sapling HW 5</td>
</tr>
<tr>
<td>Ch. 6 “Chemical Composition”</td>
<td>Sapling HW 6</td>
</tr>
<tr>
<td>Test #1</td>
<td>Chapters 2-5</td>
</tr>
<tr>
<td>Ch. 7 “Chemical Reactions”</td>
<td>Sapling HW 7</td>
</tr>
<tr>
<td>Ch. 8 “Quantities in Chemical Reactions”</td>
<td>Sapling HW 8; Worksheet 1</td>
</tr>
<tr>
<td>Ch. 9 “Electrons in Atoms and the Periodic Table”</td>
<td>Sapling HW 9</td>
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<tr>
<td>Ch. 10 “Chemical Bonding”</td>
<td>Sapling HW 10</td>
</tr>
<tr>
<td>Test #2</td>
<td>Chapters 6-9</td>
</tr>
<tr>
<td>Ch. 11 “Gases”</td>
<td>Sapling HW 11; Worksheet 2</td>
</tr>
<tr>
<td>Ch. 12 “Liquids, Solids, and Intermolecular Forces”</td>
<td>Sapling HW 12</td>
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<tr>
<td>Ch. 13 “Solutions”</td>
<td>Sapling HW 13</td>
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<tr>
<td>Test #3</td>
<td>Chapters 10-13</td>
</tr>
<tr>
<td>Ch. 14 “Acids and Bases”</td>
<td>Sapling HW 14</td>
</tr>
<tr>
<td>Final exam</td>
<td>Chapters 2-14</td>
</tr>
</tbody>
</table>
Course Schedule: Lab
See detailed Lab Schedule with all due dates on eCampus

<table>
<thead>
<tr>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
</tr>
<tr>
<td>Slime</td>
</tr>
<tr>
<td>Significant Figures</td>
</tr>
<tr>
<td>Density</td>
</tr>
<tr>
<td>Chemical Names and Formulas</td>
</tr>
<tr>
<td>Simplest Formula</td>
</tr>
<tr>
<td>Chemical Equations</td>
</tr>
<tr>
<td>Qualitative Analysis</td>
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<tr>
<td>Electron Configuration</td>
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<tr>
<td>Molecular Modeling</td>
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<tr>
<td>Aspirin Synthesis</td>
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<tr>
<td>Copper Cycle</td>
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<tr>
<td>Charles’ Law</td>
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<tr>
<td>Titration</td>
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</tbody>
</table>

The guidelines and class schedule in this syllabus may be changed, deleted, or amended at any time