# Introductory Chemistry

**Chemistry 1010 - 001**  
**Dr. Doug Harris**  
**Fall 2014 Course Syllabus**  
MWF, 8:30 – 9:20 am, Widtsoe 007  
3 credits

<table>
<thead>
<tr>
<th>Dates</th>
<th>MON</th>
<th>WED</th>
<th>FRI</th>
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<tbody>
<tr>
<td>August 25th-29th</td>
<td>Introduction</td>
<td>1</td>
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<tr>
<td>September 1st-5th</td>
<td>Holiday</td>
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<tr>
<td>September 8th-12th</td>
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<tr>
<td>September 15th-19th</td>
<td>Exam 1 8:30 a.m. Widtsoe 007</td>
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<tr>
<td>September/October</td>
<td>29th-3rd</td>
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<td>5</td>
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<td>October 6th-10th</td>
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<tr>
<td>October 13th-17th</td>
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<td>6</td>
<td>Extra Credit Information</td>
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<tr>
<td>October 20th-24th</td>
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<td>7</td>
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<td>October 27th-31st</td>
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<td>9</td>
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<td>November 3rd-7th</td>
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<td>November 16th-14th</td>
<td>Exam 3 8:30 a.m. Widtsoe 007</td>
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<td>November 17th-21st</td>
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<td>November 24th-28th</td>
<td>Make Up Exam by Appointment Only 8:30 a.m. Widtsoe 007</td>
<td>Holiday</td>
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<td>December 1st-5th</td>
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<td>December 8th</td>
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<thead>
<tr>
<th>Exam Number</th>
<th>Date</th>
<th>Chapters Included</th>
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<tbody>
<tr>
<td>1</td>
<td>Monday, 22nd of September</td>
<td>1 – 3</td>
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<tr>
<td>2</td>
<td>Wednesday, 15th of October</td>
<td>4 – 6</td>
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<td>3</td>
<td>Monday, 10th of November</td>
<td>7, 9, and 10</td>
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<tr>
<td>Make Up</td>
<td>Monday, 24th of November</td>
<td>1 – 7, 9, and 10</td>
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<td>Final</td>
<td>Monday, 8th of December</td>
<td>11, 12, and 13 – 33 questions</td>
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<tr>
<td></td>
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<td>1 – 7, 9, and 10 – 33 questions</td>
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Dr. Doug Harris  
Office: Widtsoe 335, (435) 797–1609  
E-mail: doug.harris@usu.edu  
Office Hours: 10:30 – 11:20 a.m. MW or by appointment  
Supplemental Instruction (SI): Sean Christensen sean.christensen@aggiemail.usu.edu  
SI sessions: Tuesday 4:30 p.m. GEOL 105, Thursday 7:30 p.m. GEOL 105

**Materials**  
Scientific Calculator (no cell phone calculators)  
Course web site: [http://ion.chem.usu.edu/~harrisd/](http://ion.chem.usu.edu/~harrisd/)

**Coursework**  
Quizzes, 4 @ 25.................................. 100  
Examinations, 3 @ 100........................................ 300  
Final Exam, mandatory @ 200.................................. 200  
TOTAL.................................................. 600
Grades

<table>
<thead>
<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>100% - 92%</td>
<td>A</td>
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<tr>
<td>91% - 88%</td>
<td>A-</td>
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<tr>
<td>87% - 85%</td>
<td>B+</td>
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<tr>
<td>84% - 81%</td>
<td>B</td>
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<tr>
<td>80% - 77%</td>
<td>B-</td>
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<tr>
<td>76% - 73%</td>
<td>C+</td>
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<tr>
<td>72% - 64%</td>
<td>C</td>
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<tr>
<td>63% - 60%</td>
<td>C-</td>
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<tr>
<td>59% - 57%</td>
<td>D+</td>
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<tr>
<td>56% - 50%</td>
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Note: Scores rounded to nearest one’s place (91.4% = 91% and 91.5% = 92%). The instructor reserves the right to lower these cutoff scores.

Policies and Procedures

1. The administration of Chemistry 1010 will adhere strictly to the policies (including the issuing of incompletes) outlined in the USU 2014 – 2015 General Catalog.
2. Qualified students with disabilities may be eligible for reasonable accommodations. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 797-2444 voice, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.
3. There will be four 15-minute quizzes, three 50-minute exams, and one 110-minute mandatory final exam. Students will be permitted to use a calculator (no cell phone calculators) for each quiz and exam. Exams will not be rescheduled to another date and time.
4. Missed Quiz and Exam Policy: Missed quizzes and exams which have documented and acceptable excuses will be made up with a make-up quiz and make-up exam. Excusable absences include: (1) illness when verified by a note from your doctor; (2) a family emergency which will require a note from your academic advisor and (3) any regularly scheduled university activities (e.g., sports teams) only with prior approval and a note from the person in charge of the activity stating explicitly the reasons for the absence. Students should notify the instructor in advance, if possible, prior to missing any exam. Students missing a quiz or exam (excluding the mandatory final exam) will have one week to notify the instructor that they have a valid excuse and to produce the necessary documentation. Missed quizzes and exams that are not made up will be scored as zero. Only one missed quiz and one missed exam can be made up. The make-up quiz and make-up exam are by appointment only and will be held on the dates and times published in the class schedule at the beginning of this syllabus. The make-up quiz and make-up exam will not be rescheduled to another date and time.
5. Keep in mind that the practice exams serve as an assessment of your understanding of concepts presented in lecture. Hopefully you will be diligent about following the suggested study plan outlined at the beginning of the course. Exam questions may be the same or similar to the practice exam problems but may also be completely different.
6. Scantrons will be provided by the instructor.
7. When taking the quizzes and exams, be sure to answer the problem and immediately fill out the corresponding scantron bubble. Avoid waiting to fill out your scantron sheet when finished with your quiz or exam. Keep in mind that the quizzes and exams are multiple-choice and each marked answer is either correct or incorrect. Credit will not be granted for problems that are accidentally marked incorrectly (no answer indicated, two answers provided for one problem, indicated scantron answers are one question number off, indicated scantron answer does not match personal exam copy answer, etc.).
8. Double check your scantron sheet before turning it in. Make sure that all of your answers have been entered the way you want them to appear on your scantron. Once a scantron is submitted, it may not be retrieved in order to make additions and/or changes.
9. Please arrive early to take each exam. Exams and scantron sheets will not be handed out after the first completed exam scantron sheet has been submitted. All requests for an exam and scantron sheet after the first completed exam scantron sheet has been submitted will be directly referred to this policy without further discussion.
10. Please set up your preferred e-mail account with IT services so that you will be able to receive your e-mailed quiz and exam results. Make a print out of each quiz and exam results so that you may track your progress in the course.
11. Although class attendance will not be officially taken, it will be absolutely essential that every effort is made in attending each lecture. All students will be held responsible for lecture material, worked problems, and/or course announcements that are presented in lecture.
12. If you choose to complete an optional extra-credit molecular modeling exercise, one percentage point (1%) will be added to your final grade percentage. This is helpful to a final borderline grade percentage. The extra-credit submission deadline will be at 8:30 a.m. Monday, November 10th when we meet to take the third exam. Further information will be given in class on Monday, October 13th regarding the specific details in producing the extra-credit assignment.

Course Objective and Assessment

1. The course will present chemistry conceptually, focusing on the concepts of chemistry with little emphasis on calculations. This presentation will hopefully improve each student’s learning skills and assist in developing better thinking abilities.
2. Lecture learning checks will be used as a means of assessing student comprehension. These student-centered learning strategies have previously proven successful in this chemistry course.

Some Learning Objectives:
- Become familiar with the basic physical quantities including mass, volume, energy, temperature, and density.
- Understand the fundamental concepts and language of chemistry including physical properties, chemical properties, elements, mixtures, compounds, and atomic structure.
- Understand how elements are organized in the periodic table.
- Understand radioactivity, three major radioactive products, and half-life of a radioactive isotope.
- Explore two types (ionic and covalent) of chemical bonds.
- Given a covalent molecular formula, predict the molecular structure.
- Describe the various types of intermolecular interactions.
- Gain an understanding of the basics of chemical reactions.
- Explore acids and bases and the chemical reactions they undergo.
- Gain a basic understanding of organic compounds.
- Gain a basic understanding of biomolecules.