

CHEMISTRY 101

Fall Semester 2021

Instructor: Dr. Daniel Stelck / TBD

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Office Hours: 12:30 PM – 1:30 PM on Monday, Wednesday and Friday. You can also stop by my office at any time to see if I am available.

WWW: <https://danstelck.weebly.com/chemistry-101.html>

Textbook: Introductory Chemistry, Nivaldo Tro

Calculator: An inexpensive non-text entry calculator is required. Be sure to label it with your name. You will need the calculator during class, on homework assignments and on exams. It should have capabilities for square roots, logarithms, exponentiation and scientific (exponential) notation operations.

**TEXT ENTRY CALCULATORS WILL NOT BE PERMITTED
DURING ANY OF THE EXAMS.**

Chemistry 101 is a one-semester introduction to chemistry. **This course is not a prerequisite for Chemistry 111 or Chemistry 112. Credit cannot be received in both Chemistry 101 and Chemistry 111.** The intent of this course is to introduce a variety of chemical concepts and a broad background in various areas of chemistry as well as familiarize you with the fundamentals of chemistry.

GENERAL COURSE INFORMATION

Web Site (<https://danstelck.weebly.com/chemistry-101.html>):

An essential component of this course is the course web site. Familiarize yourself with this site as soon as possible. Many of the course materials including lecture supplements, quizzes and recorded lectures will be distributed only via the course web site. You should be checking the web site several times a week to look for new course related information.

Lectures:

During lectures I will outline goals, discuss fundamental principles and present example problems from the reading material. You should read ahead in the textbook prior to each lecture and take your own notes during the lecture itself. After lecture, you are encouraged to reread and study the appropriate pages in your textbook. Be sure that you understand the examples presented in lecture and the textbook. Failure to comprehend one part of the material will lead to subsequent difficulties later in the course. Work the problems and exercises at the end of each chapter.

Answers for many of these exercises are given at the back of the textbook and in the solutions manual. Although these exercises and problems will not be collected or graded, you are expected to work them out after the relevant material is discussed in lecture.

This course will put emphasis on learning and understanding the material. In order to succeed in this class it is essential that you read the book and complete all assignments.

Take Home Quiz Assignments:

There will be four graded quizzes during the course of the semester. Each quiz is worth 50 points. All quizzes will be multiple choice and posted on my website the Friday just prior to its due date, see tentative schedule. A completed scantron for your quiz must be turned in at the beginning of the review lecture, again refer to the tentative schedule.

QUIZZES MUST BE COMPLETED BY THE DUE DATE AND TURN IN AT THE BEGINNING OF LECTURE ON THE DUE DATE IN ORDER TO RECEIVE ANY CREDIT FOR THEM, NO EXCEPTIONS.

Quiz	Due Date
#1	11:30 AM on September 8 th
#2	11:30 AM on September 29 th
#3	11:30 AM on October 27 th
#4	11:30 AM on December 1 st

Exams:

There will be four exams lasting approximately 50 minutes each and a two-hour evening comprehensive final exam. Check below for the examination dates. All exams begin at 11:30 AM. The location of your exam will in Jannsen Engineering room 104. Make-up exams will be given only in cases of serious evening conflicts.

Arrangements must be made with me a week in advance for a make-up exam. The make-up exam must be completed during an alternate exam time prior to the regular scheduled day for the exam.

A PHOTO ID IS REQUIRED AT ALL EXAMS.

Remember no text entry calculators are allowed during an exam.

Grading:

Your grade in this course will be determined by your performance on the four exams, the final exam and the four quizzes.

No extra credit points are available in this course.

The point breakdown and exam schedule is as follows.

Exam #1	Friday, September 10 th , 11:30 AM	100 points
Exam #2	Friday, October 1 st , 11:30 AM	100 points
Exam #3	Friday, October 29 th , 11:30 AM	100 points
Exam #4	Friday, December 3 rd , 11:30 AM	100 points
Quizzes	4 × 50 points per quiz	200points
Final Exam	Friday, December 17 th 10:15 AM – 12:15 PM	200 points
Total		800 points

Your course grade will be based on your final total number of points in the course.

Total Points	Course Grade
720-800	A
640-719	B
560-639	C
480-559	D
below 480	F

Course Outline

Not all of the material within each chapter may be covered in lecture yet you will be responsible for this material on the exams. In addition, you are also responsible for material that is covered in the lecture yet is not cover in the textbook.

There are *Practice Problems* at the end of each chapter. These problems will not be collected but you are still strongly encouraged to do these problems and check your answers at the back of the book or solutions manual. Going over these questions will test your understanding as we work through each chapter.

Chapter 1 The Chemical World

Optional: All problems at end of the Chapter

Chapter 2 Measurement and Problem Solving

Optional: All problems at end of the Chapter

Chapter 3 Matter and Energy

Optional: All problems at end of the Chapter

Chapter 4 Atoms and Elements

Optional: All problems at end of the Chapter

Chapter 5 Molecules and Compounds

Optional: All problems at end of the Chapter

Chapter 6 Chemical Composition

Optional: All problems at end of the Chapter

Chapter 7 Chemical Reactions

Optional: All problems at end of the Chapter

Chapter 8 Quantities in Chemical Reactions

Optional: All problems at end of the Chapter

Chapter 9 Electrons in Atoms and the Periodic Table

Optional: All problems at end of the Chapter

Chapter 10 Chemical Bonding

Optional: All problems at end of the Chapter

Chapter 11 Gases

Optional: All problems at end of the Chapter