

Summer 2019 Chemistry 151 with Dr. Michael A. Russell

CH 151, Mt. Hood Community College, Gresham, Oregon, USA 97030

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Office Hours: 7:30-8 AM MTW and By Appointment only 12-1 MTW

Chemistry 151 website:
<http://mhchem.org/151>



Required Materials:

“General Chemistry – Principles, Patterns and Applications” by The Saylor Foundation,
available here for free: <http://mhchem.org/text/GChem.pdf>

Chemistry 151 Companion available in the MHCC Bookstore or CH 151 website

Calculator with at least EXP or EE (such as the TI-83, TI-89, etc.)

Scantron Sheets for exams (50 Questions on each side)

Safety goggles for lab

Course Description: CH 151 is a basic course designed for students who want to take the CH 221/222/223 sequence but lack sufficient math and/or chemistry background. This one-term course includes mathematical applications appropriate for the first term of the above chemistry sequence, as well as an introduction to classification of matter, atomic theory, stoichiometry and nomenclature.

Prerequisite: RD090, WR090, each with a grade of "C" or better; or placement above levels. **Co-requisite:** MTH 095 or higher.

Course Philosophy: To be successful, students enrolled in this summer accelerated chemistry course should complete all assignments before coming to class, attend classes regularly, participate in discussions, and think critically to discover the fundamental theories inherent to this course. All homework assignments represent the *minimum* requirement for understanding the principles of chemistry. It is assumed that A and B students will perform enough *unassigned* exercises to master the concepts.

I encourage questions in this class. If you contact me by email, I will respond to you normally within 24 hours; phone messages will be responded to the next time I am in my office.

The Honor Principle: All students will be expected to behave with the highest moral and academic integrity while enrolled in this class. Plagiarism, cheating or sharing information on tests or laboratory reports, disruptive behavior, and other related offenses will be dealt with according to the directives stated in the current *Mt. Hood Community College Student Guide*.

Grading:	Midterm Exam	130 points	21.7% of total points
	Quizzes (5 total, lowest quiz dropped, 20 points each)	80 points	13.3%
	Final Exam	200 points	33.3%
	Problem sets (5 total, 10 points each)	50 points	8.3%
	Seven lab experiments (20 points each)	<u>140 points</u>	<u>23.3%</u>
	Total points:	600 points	100% (99.9%)

Note on the Lab Experiments: You must turn in at least six of the seven lab reports to pass the class. **This means that if you miss two labs, you will automatically fail the class.** There will be **no make-up labs, quizzes or exams; if you miss, you will receive a zero for any assignments due during that class period, including the lecture final.**

Tentative grading distribution: A: 90-100% B: 80-89% C: 65-79% D: 50-64% F: less than 50%

Problem Sets are to be completed before recitation begins. Problem sets should include your name, the problem assignment, the setup for the problem (with units), and a circled final answer. We will self-correct the problems in class; use a different colored pen to self-correct your assignment, and include all corrections as necessary. Your **problem set grade** will be one of four possibilities: a check plus (10 points, indicates completion of the assignment with *most* of the answers correct), a check (7 points, indicates partial or total completion of the assignment with *some* answers correct), a check minus (3 points, indicates an incomplete or late assignment) and a zero for assignments not turned in. Late assignments are worth a maximum of three points.

In the **Laboratory**, chemistry safety goggles must be worn at all times. The balance room must be kept clean at all times; the equipment is expensive and easy to damage, and a messy balance may result in a class point penalty.

Late Lab Reports must be turned in within one week of the scheduled due date. Labs turned in up to one week late are worth half credit; no credit will be given after one week. **If you miss the lecture final** for any reason, you will not be able to make it up and your score will be a zero.

"What's Due This Week" Schedule for CH 151 Summer 2019

Problem Sets and Labs can be found in the Chemistry 151 Lab Manual and on our website (<http://mhchem.org/151>)

The textbook for this class is free and available here: <http://mhchem.org/text/GChem.pdf>

<u>Week</u>	<u>Dates</u>	<u>Assignment</u>
1	6/24	<i>Introduction to course</i> <i>Lecture: Chapter 1 Part I</i> <i>Lab #1: Eight Bottles</i>
	6/25	<i>Lecture: Chapter 1 Part II</i> <i>Lab #2: Problem Solving - The Dimensional Analysis Method – lab due Monday, July 1, 8 AM</i>
	6/26	Problem Set #1: Chapter 1 Quiz #1 – Conversions, Significant Figures, the Metric System, etc. <i>Lecture: Chapter 2 and Chapter 3, Part I (Nomenclature)</i>
2	7/1	Problem Set #2: Chapter 1 Quiz #2 – Chemical History, Isotopes, etc. <i>Lab #3: Chemical Formulas - Nomenclature</i>
	7/2	<i>Lecture: Chapter 2 and Chapter 3, Part II (gram/mole/atom manipulations)</i> <i>Lab #4: Determination of the Density of Liquids and Solids</i>
	7/3	Problem Set #3: Chapter 2 and Chapter 3 (no balancing of equations) Quiz #3 – Nomenclature only Review for Midterm Exam
3	7/8	Midterm Exam (covers Chapters 1 - 3) – bring scantron, calculator, pencil, no makeup if missed <i>Lab #5: Chemical Bonding and Molecular Models</i>
	7/9	<i>Lecture: More Chapter 3 Part I (Balancing Equations)</i> <i>Lab #6: Chemical Equations & Reaction Types</i>
	7/10	Problem Set #4: Chapter 3 (balancing of equations) Quiz #4 – Balancing Chemical Equations <i>Lecture: More Chapter 3 Part II (Manipulating Chemical Equations)</i>
4	7/15	<i>Lecture: Chapter 6 (Atomic Orbitals and Electrons)</i> <i>Lab #7: Percent Potassium Chlorate in a Mixture</i>
	7/16	Problem Set #5: Chapter 3 (Manipulating Chemical Equations) and Chapter 6 Quiz #5 – Manipulating Chemical Equations only Review for Final Exam
	7/17	Final Exam - covers all chapters, no makeup if missed; bring scantron, calculator, pencil, %KClO₃ lab

Problem Sets are due on the date listed.

Labs are due on the following class period unless stated otherwise

Quizzes are all "show your work" and last about 30 minutes.

The **Midterm** and **Final** use a mix of multiple choice and show your work questions and last about 2 hours

All dates subject to change.

Attendance during all laboratory sessions is mandatory. No makeup lab sessions will be provided.

Class meets at 8 AM in AC 2501 on MTW during the first four weeks of summer quarter