

C1151-02: Principles of Chemistry 1 (Hybrid)

Spring Semester, 2018

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v.12.21.17



Contact Information:

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WARNING:

This hybrid course requires ON CAMPUS Exams and Laboratories.

If you are taking this course because you believe it to be entirely on-line, you should withdraw.

Principles of Chemistry 1 might be the most difficult courses you've taken so far in your college career. New terminology, abstract concepts and problem solving all contribute to a demanding course that requires a lot of time spent studying and working problems. I've selected a very good textbook, created narrated lectures and utilized on-line resources to give you the best chance at mastering the material.

However, you must be able to devote yourself to this course and you must be reasonable about your responsibilities. If you work and have a family, this one course could be too much to manage. Use the table below to determine what course load is realistic for you. Keep in mind that courses with required laboratories will require additional work outside of class.

Working (Full Time)	Working (part time)	Family	Recommended Number of Course(s)
Yes	No	Yes	1 (very challenging)
Yes	No	No	1
No	Yes	Yes	1
No	Yes	No	2
No	No	Yes	2
No	No	No	3 (full time student)

Week 1 Quick Start:

Here's what you must do the **first week** of class. Details are available in this syllabus below.

- Print out this syllabus and mark your calendars with important exam dates and times.
- Access your school email account and obtain instructions for **Mastering Chemistry** and **E-text** access through the D2L website. Log into D2L and follow the instructions to connect with both **MC** and the **E-text**.
- Read Chapter 1 and work the associated Mastering Chemistry homework problems.
- Visit the course website and view Chapter 1 Lectures (These are narrated...be sure you can hear the instructor's voice).
- Begin taking the required D2L quizzes (Note: Two attempts with highest score recorded). D2L isn't available until classes officially begin.
- Labs will begin meeting the 3rd week of class.

Course Description:

The CHEM 1151-02 course is the first part of a two-semester sequence designed to give students a broad introduction to the field of chemistry. It involves content delivered on-line and in person laboratory sessions. Students are expected to be knowledgeable in the topics covered by Introduction to Chemistry C1020 (or its equivalent) and Math 0080 (see additional prerequisites below).

Prerequisites:

You need to have **successfully** completed **Chem 1020, Math 0080, Read 0200 and English 0900** or the equivalent of these courses (...with a good grade). It is your responsibility to have met the course prerequisites before the C1151 course begins. Not having met the math requirement will severely limit your success in this course.

Textbook and Required Materials:

- The E-text for this class is available through D2L. This cost is part of your course tuition. If you would also like to purchase a used hardcopy textbook, any edition (1st, 2nd or 3rd) will work well. Chemistry: Principles of Chemistry: A Molecular Approach by Nivaldo J. Tro, Prentice Hall.
- Mastering Chemistry through D2L. You will use this online homework utility throughout the semester.
- Scientific or graphing calculator (Cell phones and laptop computers will not be permitted during exams).

Important Websites:

- **Course Website** (Daily announcements, lectures, videos, old exams and additional HW problems): http://www.mctcteach.org/chemistry/C1151/C1151_Hybrid/
- **D2L** (Mastering Chemistry, E-text, online quizzes, exams and discussion forum): <http://minneapolis.learn.minnstate.edu>
- **Lab Manual** (laboratory handouts and instructions): <http://www.MCTCteach.org/chemistry/C1151>

Lecture:

- Daily announcements, topical discussion and video will appear on the course website. You are responsible for checking course website every day.
- View/study the narrated lectures that are available on the course website.
- D2L Discussion board.
 - Post all chapter specific questions on the D2L discussion board.
 - Use email **ONLY** for confidential communication.

Homework and quizzes:

- Mastering Chemistry Homework assignments are accessed via D2L. Assignments must be completed before they expire (No exceptions).
- Required quizzes are available on the D2L website. Two attempts are allowed with the highest score recorded in the gradebook. Late quizzes are not permitted.

Laboratory:

- Not performing more than 3 lab experiments will significantly affect your course grade. Refer to the laboratory section of this syllabus for details.
- Attending a different laboratory session requires 1 week prior approval of all affected instructors.
- The lowest laboratory report and quiz is automatically dropped whenever grades are posted throughout the semester.

Student Responsibilities

- You are responsible for all the information, requirements and procedures described in this syllabus.
- Any topic assigned on the syllabus or appearing in the book may appear on an exam.
- Class attendance and punctuality are very important. Don't be late for lab.
- You are responsible for all announcements and materials presented in class via D2L, the course website, Mastering Chemistry and email.
- You are responsible for knowing and obeying the Student Code of Conduct as established by MCTC.
- Academic dishonesty (including but not limited to plagiarism and cheating) is absolutely prohibited on any assigned work, including: homework, exams, quizzes, and lab reports.
- First-time violations of the Student Code of Conduct will be reported on the Student Misconduct Form and, if the misconduct involves homework or an exam, a zero will be assigned for the work in question. Appropriate sanctions will be imposed for second-time violations, and a grade of "F" will be assigned for the entire course.
- *Cell phones*, music, pagers, etc. are to be TURNED OFF during lecture/lab times.
- *By enrolling in this class you agree to work all quizzes and exams individually with no help from others.*

Your Success

- Learning is your job and responsibility. Take it seriously.
- Don't fall behind.
- Read the text book.
- View the recorded lectures
- Do the Mastering Chemistry homework problems. Don't "Google" for answers. You won't learn anything.
- Work the extra homework problems posted on the course website.
- Print out and work the practice exams available on the course website.
- Take advantage of posted office hours.
- Make an appointment with the instructor early in the semester. Don't wait until it's too late.
- Make an appointment with a Learning Center tutor.

Grading:

		Grade Cutoffs:
Online Exam #1	10%	A > 90%
On-CAMPUS Exam #2 (Ch. 1 - 6)	25%	B > 80%
Online Exam #3	10%	C > 70%
On-CAMPUS Exam #4 (Ch. 7 - 11)	25%	D > 60%
Final Exam (Optional)		F < 60%
Homework, D2L quizzes	10%	
Laboratory	20%	
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Total	100%	

- **Exams:**
 - **Exams #1 and #3** are each available as two different versions on two different consecutive days (check the course schedule for details). You are responsible for taking only one version of an online exam. If both online exam versions are attempted, a zero grade is awarded for that exam.
 - **Exams #2 and #4** are on-campus written exams and are available only once on the days indicated on the course schedule. Exam questions are designed to test your knowledge and confidence and will not be reproductions of homework or quiz problems.
 - **Final Exam:** The Final Exam is optional and you can take it to improve your grade. If taken, the final exam score can be substituted for either Exam #2 or #4 (whichever is lower). There is no penalty for taking the final exam.
- **D2L Quizzes:** Scheduled quizzes and deadlines are listed in the quiz section of the D2L course website. Students are responsible for knowing when quizzes are due.

- **Makeup Exams:** There are no makeup exams. All exams are to be taken on the scheduled dates and times (this includes the Final) Mark your calendars now. See syllabus below for details.
- **Homework:** Mastering Chemistry and D2L quizzes will contribute 10% to the total course grade.
- **Posted Grades:** Coded grades will be posted periodically on the course website as an Excel spreadsheet. Early in the semester you will receive an elemental code that identifies your grades. The standard D2L grade book *will not be used*.
- **Last Date of Attendance.** Your attendance in this class is monitored. Failure to participate regularly or missing more than 3 laboratories will result in lower course grades and possibly you being dropped from the course.
- **Incompletes:** Incompletes are very rarely granted. A signed contract is required and coursework must be completed during the first week of the next semester. Failure to do so results in the "I" automatically turning into an "F".
- **Extra Credit:** There is no extra credit available for this course.

Special Needs

If you need an accommodation to make it possible for you to succeed in the lecture and/or laboratory section of this course (such as, but not limited to, wheelchair access or a sign language interpreter), please contact the Office for Students with Disabilities: (612-659-6730 or 612-659-6731 (TTY), T223).

If you qualify for special quiz and testing accommodations through the Accessibility Resource Center, you must make these arrangements at least two weeks in advance. You must take quizzes and exams the same day as the rest of the class. Failure to make advanced arrangements means you will take quizzes/exams at the times and locations listed on the course schedule and webpage with the rest of the class. It is recommended that you make arrangements as soon as possible to guarantee testing rooms are available.

Religious Accommodations

Minneapolis Community and Technical College is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Students' sincerely held religious beliefs shall be reasonably accommodated with respect to scheduling and other academic requirements for this course. *Students requesting academic accommodations due to religious beliefs must notify the instructor of such requests in writing or by email by the end of the second full week of classes.* If a student fails to notify the instructor accordingly, then there is no obligation on the part of the Chemistry Department or its staff to accommodate the student in any manner.

Laboratory

Meeting Times (Room S-2300)

Monday	Section 04	Boraas	8:15	AM –	10:45 PM
Monday	Section 05	Boraas	2:30	PM –	5:00 PM
Monday	Section 06	Boraas	5:30	PM –	8:00 AM
*Monday	Section 01	Vindedahl	11:15	AM –	1:45 PM
*Tuesday	Section 02	Vindedahl	11:15	AM –	1:45 PM
*Tuesday	Section 03	Vindedahl	5:30	PM –	8:00 PM

* These labs are available as limited "make up" lab options with minimum 1 week advanced notice and available space.



Required Materials:

- Handouts are available on the C1151 Chem. Student Resources web page: <http://MCTCteach.org/chemistry/C1151>
- Download, print and study the laboratory handouts before coming to lab (There will be a quiz)
If you don't have a printed lab handout ready for lab, you won't be allowed to do the experiment.
- You will need a scientific calculator every time you meet for lab.

....Laboratory continued on next page....

Laboratory Attire

- **Goggles:**
 - Minnesota state law requires that you wear safety goggles while you or others are performing experiments in the laboratory and you must always wear your goggles unless the laboratory instructor tells you otherwise.
 - MCTC does not regularly supply goggles for student use. You must purchase goggles and bring them to lab.
 - If you fail to bring goggles with you to lab, you will have the option of borrowing a pair.
 - 2 points will be deducted from your lab quiz each time you borrow goggles.
 - Failure to wear goggles as instructed while in the lab will result in your dismissal from the laboratory and a grade of zero for that experiment.
- **Dress:** You will not be allowed to do an experiment if not dressed appropriately for the lab.
 - **Shoes:** Allowed: Closed toes and backs
Not allowed: Shoes with cut-outs or vents that expose skin.
Sandals with or without socks.
 - **Clothing:** Allowed: Long pants with no tears or holes and skirts that cover the leg.
Not allowed: Shorts, capri pants, nylon panty hose, tights, tank tops or loose fitting clothing.
 - **Hair:** Long hair should be tied back or confined before coming to lab to prevent it from catching fire, being dragged through chemicals or getting caught up in lab apparatus.

Grading: (20% of the course grade)

- Lab reports (10 points each) are due at the *beginning* of the next laboratory session. They are otherwise considered LATE one day. 1 point per day is deducted for reports turned in late (Maximum 5-point deduction)
- Lab quizzes (10 pts each)
 - Quizzes are administered during the first 15 minutes of the laboratory class.
 - If you are more than 15 minutes late for lab, you will receive a zero for both the lab write-up and quiz.
 - There is no additional time for students arriving late.
 - Quizzes will be based upon foundational material, the day's laboratory procedures and safety protocol.
 - Quizzes will be graded immediately.
 - **Individuals not passing with a score of 6/10 or better will be dismissed from the laboratory and will receive a zero for the experiment report. This WILL count as a missed experiment and can significantly affect your course grade (see below).**
- The lowest laboratory quiz and report will be dropped whenever grades are posted.

Missed Labs

- Attending lab is an important part of your success in this course. Missed lab experiments, either the result of you missing lab OR you not passing the laboratory quiz, will affect your course grade as follows
 - 4 missed experiments: 1 final grade letter deduction (e.g. Course grade changes from B to C)
 - 5 missed experiments: 2 final grade letter deduction (e.g. Course grade changes from B to D)
 - 6 missed experiments: 3 final grade letter deduction (e.g. Course grade changes from B to F)
- Missed labs cannot be made up.
- For legitimate reasons, it may be possible to attend another lab session that same week **IF THERE IS ROOM** (Maximum occupancy: 18 students/lab). However, you can only attend a different lab session if *advance permission (1 week)* has been granted by the laboratory instructor.

Data

- You must record data in PEN while in the lab. Recording it in pencil and then writing over it in pen at the end of lab is not allowed.
- Have the instructor sign and date your datasheet before leaving the lab to receive credit for the experiment.

Lab Reports:

- Reports are due the next time lab meets.
- If you judge your lab report too messy to submit, you can print another copy and fill it in. However, you must also turn in a copy of the signed data sheet.
- Non-data items in your lab report (calculations and answers to questions) can be recorded in pencil.
- There is no credit awarded for lab reports submitted without a signed data sheet.
- Late reports will be penalized at a rate of -1pt/day for being late (- 5 points max...data sheet worth 5 pts)
- Ask your lab instructor about the last possible date/time to turn in late lab reports at the end of the semester.

Cleanup:

- EVERYONE will be held responsible for cleaning up their area at the end of the lab session.
- Data won't be signed until all equipment has been neatly put away and the bench tops and hoods are wiped down with a damp sponge.

Tentative C1151-02 Schedule (Subject to change):

	Laboratory	Textbook	Important Dates
Week 1 (M 1/8 – 1/12 F)	None	Chapter 1	1/12 (F) Last day to drop/add
Week 2 (M 1/15 – 1/19 F)	None	Chapter 2	1/15 (M) Martin Luther King Day. No Classes
Week 3 (M 1/22 – 1/26 F)	L1: Computer Survival Laboratory Safety	Chapter 3	
Week 4 (M 1/29 – 2/2 F)	None	Chapter 3 – Chapter 4	1/30 (T) Student Success Day (No Classes) 1/31 (W) or 2/1 (Th) 7:00 – 9:00 PM Online Exam #1: Chapters 1 – 3
Week 5 (M 2/5 – 2/9 F)	L2: Empirical Formula of Zn and I ₂	Chapter 4 – Chapter 5	
Week 6 (M 2/12 – 2/16 F)	L3: Solution Conductivities	Chapter 5	
Week 7 (M 2/19 – 2/23 F)	None	Chapter 6	2/19 (M) President's Day (No Classes)
Week 8 (M 2/26 – 3/2 F)	L4: Gas Laws	Chapter 6 – Chapter 7	3/1 (Th) 6:00 – 9:00 PM On Campus Exam #2 Chapters 1.1 – 6.9
Spring Break (M 3/5 – 3/9 F)			
Week 9 (M 3/12 – 3/16 F)	L5: Energy and Batteries	Chapter 7	
Week 10 (M 3/19 – 3/23)	L6: Graphical Data Analysis	Chapter 8	
Week 11 (M 3/26 – 3/30 F)	L7: Spectroscopy	Chapter 8	3/29 (Th) Faculty Dev. Day (No Classes)
Week 12 (M 4/2 – 4/6 F)	L8: Beer's Law	Chapter 9	4/4 (W) or 4/5 (Th) 7:00 – 9:00 PM Online Exam #3 Chapters 6.10 - 8
Week 13 (M 4/9 – 4/13 F)	L9: Titration of Acetic Acid	Chapter 10	4/12 (Th) Emergency Drill 1:45 & 6:55
Week 14 (M 4/16 – 4/20 F)	L10: Synthesis of Alum	Chapter 10 (omit 10.8)	
Week 15 (M 4/23 – 2/27 F)	L11: Determination of Vitamin C	Chapter 11	
Week 16 4/30 (M)– 5/4 (F)	L12: Molecular Modeling	Chapter 11 (omit 11.10 – 11.12)	5/3 (Th) 6:00 – 9:00 PM On Campus Exam #4 Chapters 6.10-11 5/4 (F) Faculty Dev. Day (No Classes)
Week 17 Final Exams 5/7 (M)– 5/11 (F)	None		5/9 (W) 6:00 – 9:00 PM Optional On-Campus Final Exam Cumulative: Ch. 1 - 11