

Chemistry 1140-01: Chemistry in Your Life
Online Lecture (see D2L site)
Lab: Tuesday 2:30 – 4:10pm or 6:00 – 7:40pm
Fall, 2015
Dr. Wendy Naughton

Contact Information

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Office Hours

Mondays: 12:30 – 1:00pm

Tuesdays: 1:00 – 2:00pm; 5:00 – 5:45pm

Thursdays: 1:00 – 2:00pm

Fridays: 12:30 – 1:30pm

Laboratory

- Enrollment and participation in the laboratory component of this course is **REQUIRED** (you cannot pass the class without enrolling in lab). Work done in lab contributes to 20% of your overall course grade (you do not get two separate grades for lecture and lab).
- In addition, the final for this course will include questions focused on the lab activities and will be “open lab notebook”.
- The activities completed during the lab sessions are intended to be fun, educational and to reinforce concepts studied in lecture.

Textbooks and Materials

Lecture Textbook:

Chemistry for Changing Times, 13th edition, (978-0321750877) Hill, McCreary & Kolb

Laboratory Protocols:

These documents will be available via the lecture D2L site.

Splash-proof Safety Goggles:

Two different models are for sale in the MCTC bookstore. You will not need them for our first laboratory session and there will be opportunity to clarify questions regarding safety goggles at that meeting.

A three-ring binder with dividers and/or tabs:

This will be used to hold your laboratory protocols and will be an invaluable resource for the final exam at the end of the term.

Prerequisites

There is no previous chemistry coursework required for this course.

FYI: This course is offered as a non-science major’s chemistry course. It **WILL NOT** serve as a pre-requisite for future coursework in the chemistry major track at MCTC and is generally **NOT ACCEPTED** as part of a pre-nursing or pre-healthcare curriculum.

Student Responsibilities

- Read the entire syllabus carefully: You are responsible for all of the information, requirements, and procedures described herein.
- Laboratory attendance, punctuality and participation are very important and count as a significant part of your grade. It is expected that every student is on time and present for each laboratory session
 - **YOU ARE RESPONSIBLE** for all announcements and material posted on D2L, whether or not the topic is in your text.
 - It is **YOUR RESPONSIBILITY** to seek help from your instructor, your classmates and/or the Learning Center if anything (from course requirements to chemistry concepts) posted on D2L is unclear to you.

Course Policies

All MCTC policies and procedures are firmly enforced in this course.

- Students 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.
- Any resources outside of other human beings are allowed for use during online quizzes and exams.
- Personal stereos, cell phones, pagers, or any other irrelevant electronic devices are to be **TURNED OFF** during lab time.
- 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.

Lab Policies

- Minnesota State Law requires that you wear safety goggles **at all times** in the laboratory when chemicals are being used!!! The safety training session on the first day of lab is mandatory before one can participate in subsequent laboratory activities.
- Punctuality is important, as emphasized by the timing of the prelab quizzes. Missed labs cannot be made up and (to best prepare for the final exam) the student is responsible for finding out what they have missed.
- Students should expect to be in lab working during the entire hour and 40 minutes. Even if you finish with the activity early, make sure you spend adequate time getting your results recorded and your notebook in order. This will help you significantly on your final exam!
- Each student should maintain a laboratory binder over the course of the semester. Binders should contain:
 - An organizational system for easily locating each protocol (tabs and/or table of contents)
 - Prelab questions (and answers)
 - Results, data and observations from each lab activity
 - Postlab questions (and answers)
- If you miss a lab, ask a classmate for their data & observations → you’ll need them for the notebook checks and final exam!

Grades and Grading Policy

Your overall grade* will be based on the following distribution:

Online Quizzes & Homework	22%	*Letter grades will be assigned as follows: A ≥ 90.0% B ≥ 80.0%; C ≥ 70.0%; D ≥ 60.0%; F < 60% Although it is unlikely any curving will be done, I reserve the right to lower the above scheme.
Online Exams	24%	
Civic Engagement Assignments	15%	
Laboratory Quizzes	10%	
Laboratory Participation	10%	
Laboratory Notebook/Binder Checks	4%	
Final Exam	15%	

Online “Quizzes” & Homework (22%)

- For your benefit, **two online quizzes** will be scheduled each week, the deadlines for which will generally be **Thursdays and Mondays** (this routine will be altered for holidays and during weeks in which there is a Module Exam – see semester schedule on page 7).
- Each online quiz will consist of 5 – 10 multiple-choice or true/false questions, focusing on the one to three newest chemistry concepts that you would have studied at that point in the term.
- You can prepare for the quiz, primarily, by watching the associated narrated lectures (lecture videos) posted under Content on D2L. In addition to the lecture videos, (1) the study guide highlights specific sections and problems in your textbook for studying relevant concepts, (2) often power point presentations (without audio attached) and other additional resources will be posted under Content on D2L, (3) for some concepts, a worksheet will be posted requiring you to complete online and/or textbook research prior to taking the quiz.
- You will get **three opportunities** to take each online quiz, with only your higher score recorded on D2L Gradebook.
- Any resources outside of other human beings are allowed for use during online quizzes.
- Each student gets one “grace extension” to use on these quizzes throughout the semester; If you (for whatever reason) cannot complete a quiz by the deadline, contact me and I will grant you an extension (once during the school year)
- At the end of the term, your lowest online quiz grade will be dropped prior to the final grade calculation.

Exams (Midterm Online 24%; Final 15%)

- **Four midterm online exams and one on-campus final exam** will be administered over the course of the semester (see attached schedule for exact dates, page 7).
- All students are expected to take the **online exams** during their **scheduled two-day windows** (see schedule pages 7). With notification prior to a test date, requests to take exams prior to scheduled times may be granted **if deemed appropriate by the instructor**.
- Midterm online exams will primarily consist of multiple-choice questions and one essay question. The essay question will be posted one week before the exam and students will submit it via Dropbox separately from the multiple-choice component of their exam.
- Any resources outside of other human beings are allowed for use during online exams.
- The final exam for the course will be administered on-campus during the last laboratory session of the term. It will focus on water quality (from lecture) and all the lab activities from the semester. The laboratory portion of the exam will be **cumulative, open-notebook**, and will cover concepts, techniques, data, results and conclusions from each lab activity.
- **All five exams are required** components of the course and none will be dropped from your final grade calculation at the end of the semester.

Civic Engagement Assignments (15%)

Goal Area 9: Ethical and Civic Responsibility

Courses assigned to MnTC Goal Area 9 are designed to develop students' capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life; and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and others' positions, be part of the free exchange of ideas, and function as public-minded citizens.

- All students are required to complete three assignments that enable them to fulfill Goal Area 9 for this course. In addition, at the end of the term, students may choose to redo a previous assignment and improve its grade (when handing in, be sure to attach the previously graded assignment to the “redo”). All assignments are due via D2L Dropbox. Assignments will NOT be accepted via email.
- Each of the three assignment options require the individual student to engage in an activity focused on a socially-relevant chemistry topic or issue. Each student may only complete each assignment one time (unless completing a “redo”).
- Among the three civic engagement assignments completed, students should select as least two different topics and should engage in at least three different activities, including: 1) educating one's self beyond the course material, 2) exchanging ideas with peers, 3) communicating with key parties and 4) taking personal action. Refer to the “Civic Engagement Assignments” link under “Content” for more specific information. Also, feel free to talk with me (your instructor) if you have any questions regarding these requirements.

Lab Quizzes (10%)

- A ten-point quiz will be given during the first ten minutes of each laboratory period. This quiz will cover safety procedures, lab procedures, concepts and techniques involved in the lab to be performed that week.
- If you arrive late, you will not get extra time. If you are late by 10 minutes or more, you will NOT be allowed to take the quiz.
- The labs generally come shortly after the same topics are covered in lecture, so make sure you understand the relevant basic principles from lecture. Read the experiment handout and plan your work before you come to the lab. Each protocol consists of prelab questions for you to consider before coming to lab. These questions are for your benefit and will not be collected or graded. Quizzes are likely to contain the same or similar questions, so it is extremely advantageous to complete and study prelab questions before coming to lab.
- It is not possible to make up a missed laboratory quiz. However, at the end of the term, your lowest lab quiz grade will be dropped before your final grade is calculated.

Lab Participation (10%)

- Students receive credit for fully participating in the weekly laboratory activity. If any component of a week's activity is missed, zero to partial credit will be awarded for that week's participation.
- Students must have the instructor look over and sign their completed protocol at the end of each lab session.
- It is not possible to make up a missed laboratory session. However, at the end of the term, your lowest lab participation grade will be dropped before your final grade is calculated.

Binder/Notebook Checks (4%)

- I will check your laboratory binders on the 5th and the 15th weeks of the semester. This is to make sure you are on the right track with your binder management to ensure you will be adequately prepared for the Final Exam.

Incompletes ("I") are NOT routinely granted! *Students with emergency situations at the end of the course MAY be eligible for an incomplete, only if they have taken the three midterm exams and all of the project assignments. Once an incomplete is granted, you are required to sign a formal contract specifying the work to be completed and due dates of that work. Any incomplete must be made up during the first week of the following semester. If the missing work is not completed by this time, the grade of incomplete automatically converts to an F at the end of that semester.*

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).

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 for this semester due to religious beliefs must notify the instructor of such requests in writing or by email **by 5:00 pm on the first Friday of the semester**. 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.

MCTC Attendance Policy

Students are expected to regularly attend classes in which they are enrolled and abide by MCTC Policy 4.05.01 Procedures for Changing Enrollment. Students who decide to stop attending courses should immediately drop/withdraw from their course(s). Students who fail to officially withdraw from their course(s) may be administratively withdrawn from a course when a student stops attending or for a course that a student does not attend. The student will remain responsible for any financial liability, less applicable refunds they have incurred and for any academic consequences due to this administrative withdrawal.

Study Hints

For this three-credit class and one-credit lab, you should plan to spend about **EIGHT HOURS** a week on watching lecture videos, working on practice problems (including online quizzes), reading the textbook, homework assignments, and preparing for lab.

Step 1: CREATE A REASONABLE WEEKLY SCHEDULE FOR YOURSELF (WITH AMPLE TIME FOR THIS CLASS) RIGHT AWAY AT THE BEGINNING OF THE SEMESTER. One of the dangers of online courses is that one can easily fill up their time with other courses and/or responsibilities, forgetting to make time for working on the online course material. Your ability to succeed in this course will be greatly enhanced by a strong start to the term – with weekly designated windows of time for studying the interesting and relevant concepts covered in this course!

Step 2: STAY CONNECTED. Make sure you are able to receive emails from me (your instructor) within a reasonable window of time from when they are sent. Check the D2L site for News related to the course at least every other day. Obtain contact information from classmates and utilize those connections (and/or your instructor's email address) to seek out answers to questions, should they arise.

Step 3. BE ON TIME FOR AND PARTICIPATE IN EVERY LAB SESSION. Hybrid courses tend to have much higher success rates than purely online courses and one explanation for this is that hybrid courses allow for in-person connections that can better support learning. Make the most out of these opportunities! (Plus, lab counts for 24% of your grade!)

Step 4: PRACTICE, PRACTICE, PRACTICE! Particularly in the first two Modules covered in this course (Radiation & Vitamins...), we will be learning about chemistry concepts that serve as a foundation for understanding many of the “real-world” applications discussed in this course. If you have never taken chemistry before, it will be important for you to spend time learning and applying these concepts. The best way to do so is by working on suggested problems in the textbook and given as part of your study guide.

Step 5: FORM OR JOIN A STUDY GROUP. Working with other students is one of the most effective ways to learn chemistry. You can often get immediate help from your study partners on a sticky concept, and helping other people is an excellent way to make sure that you have a good understanding of the material. It's often more useful to explain to someone else how to work a problem than it is to work it yourself. Also, you will have the opportunity to meet new friends with similar interests and classes.

Step 6: HELP IS AVAILABLE. If you have difficulty, seek help immediately and NEVER EVER wait until the last minute to talk with me.

- You are strongly encouraged to visit me during my Office Hours, or to contact me via e-mail or phone—if you want to schedule a meeting at a time other than my Office Hours.
- Free tutoring for chemistry students is available in the Learning Center, T4300, 659-6140. Trained tutors are available to help you on a drop-by or, preferably, sign-up basis.
- When asking for a tutor at the Learning Center, it may help to let them know any “1140” and most “1020” tutors should be able to help you.

Tentative Schedule for the Semester

(in addition to the important dates listed below, plan on completing two online quizzes per week – deadlines will generally be Monday and Thursday each week)

Week	Labs	Topic	Important Dates/Assignments
One 8-25 to 8-31	Safety & Check In (8/25)	Module One: Radiation (See study guide)	
Two 9-1 to 9-7	Pure Substances & Mixtures (9/1)		
Three 9-8 to 9-14	Nuclear Radiation (9/8)		
Four 9-15 to 9-21	Guest Speaker (9/15)		EX 1 (Sun, 9/20 – Mon, 9/21)
Five 9-22 to 9-28	1st Notebook Check (9/22)	Module Two: Food, Vitamins, Minerals, Antioxidants (See study guide)	
Six 9-29 to 10-5	Ionic vs. Covalent (9/29)		Civic Engage Assign 1 (10/2)
Seven 10-6 to 10-12	Polarity (10/6)		EX 2A (Sun, 10/11 – Mon, 10/12)
Eight 10-13 to 10-19	Food Chemistry* (10/13)		
Nine 10-20 to 10-26	Food Chemistry cont. (10/20)		EX 2B (Sun, 10/25 – Mon, 10/26)
Ten 10-27 to 11-2	Identifying Plastics (10/27)	Module Three: Air Quality & Energy (See study guide)	
Eleven 11-3 to 11-9	Making Polymers (11/3)		
Twelve 11-10 to 11-16	NO LAB (11/10)		Student Success Day (11/10) Civic Engage Assign 2 (11/13)
Thirteen 11-17 to 11-23	Air Quality & Energy (11/17)		
Fourteen 11-24 to 11-30	Presentations (11/24)		EX 3 (Sun, 11/29 – Mon, 11/30)
Fifteen 12-1 to 12-7	pH Household Products & 2 nd Notebook Check (12/1)	Module Four: Water Quality & Household Products (See study guide)	
Sixteen 12-8 to 12-11	Water Quality (12/8)		Civic Engage Assign 3 (12/11)
12/15	Final Exam Tuesday, December 15th during your lab time (2:30 – 4:10pm or 6:00 – 7:40pm) Civic Engage Final “make up” or “redo”		

*We will use Culinary Arts kitchen for this lab and may need to adjust our meeting time to accommodate their schedule.